VIRGINIA WILDLIFE

JUNE 2001 ONE DOLLAR

Special Walleye Issue

James S. Gilmore III, Governor

VIRGINIA

SIC SEMPER TYRANNIS

CERTIFICATE of RECOGNITION

By virtue of the authority vested by the Constitution in the Governor of the Commonwealth of Virginia, there is hereby officially recognized:

THE GOVERNOR'S ANGLING EXTRAVAGANZA

WHEREAS, fishing in our great Commonwealth's many ponds, lakes, rivers, and in the Chesapeake Bay is a safe and healthy form of outdoor recreation that fosters lasting relationships among people of all ages; and

WHEREAS, fishing is a longstanding and respected tradition in the Old Dominion, deeply rooted in our Commonwealth's history and ingrained in the hearts of many Virginians; and

WHEREAS, the Governor's Angling Extravaganza is designed to encourage fishing in Virginia's waters, to foster environmental awareness and concern for Virginia's waters, and to promote fishing as a leisure activity that can be enjoyed for a lifetime; and

WHEREAS, the Department of Conservation and Recreation (DCR), the Department of Game and Inland Fisheries (DGIF), and the Virginia Marine Resources Commission (VMRC) will sponsor special programs such as the Trophy Fish Challenge, the Kids 'n Fishing Photo Contest, Fishing for Families, Fun-tastic Fishing Programs, and 3-For-Free Fishing Days during the Governor's Angling Extravaganza; and

WHEREAS, families, businesses, and other organizations are encouraged to participate in the Governor's Angling Extravaganza by organizing fishing tournaments, teaching young people to fish, and encouraging people everywhere to "get fishing" in Virginia;

NOW, THEREFORE, I, James S. Gilmore, III, do hereby recognize June 1-3, 2001 as **THE GOVERNOR'S ANGLING EXTRAVAGANZA** in the **COMMONWEALTH OF VIRGINIA**, and I call this observance to the attention of all our citizens.

VIRGINIA

James S. Gilmore

Anne G. Petera

Color separations and printing by Nittany Valley Offset, State College, PA.

Virginia Wildlife (ISSN 0042 6792) is published monthly by the Virginia Department of Game and Inland Fisheries. Send all subscription orders and address changes to *Virginia Wildlife*, P. O. Box 7477, Red Oak, Iowa 51591-0477. Address all other communications concerning this publication to *Virginia Wildlife*, P.O. Box 11104, 4010 West Broad Street, Richmond, Virginia 23230-1104. Subscription rate is $10.00 for one year, $24.00 for three years; $1.00 per each back issue, subject to availability. Out-of-country rates are the same but must be paid in U.S. funds. **To subscribe, call toll-free (800) 710-9369.** Postmaster: Please send all address changes to *Virginia Wildlife*, P.O. Box 7477, Red Oak, Iowa 51591-0477. Postage for periodicals paid at Richmond, Virginia and additional entry offices.

VIRGINIA WILDLIFE

Cover: Walleye *(Stizostedion vitreum)*: ©Bill Linder Photography

Features

June Journal

Dedicated to the Conservation of Virginia's Wildlife and Natural Resources

Walleye Wizard

After years of learning how to catch the elusive walleye, southwestern angler, Don Qualls offers some fishing advice that's sure to tip the scales in your favor.

Above left: For the last eight years, Don Qualls has been mastering the fine art of catching walleye in Virginia. Above: Trolling and using spinner rigs are two of the key elements that have enabled Don to consistently catch walleye.

story by Tom Hampton
photos by Dwight Dyke
illustrations by Spike Knuth

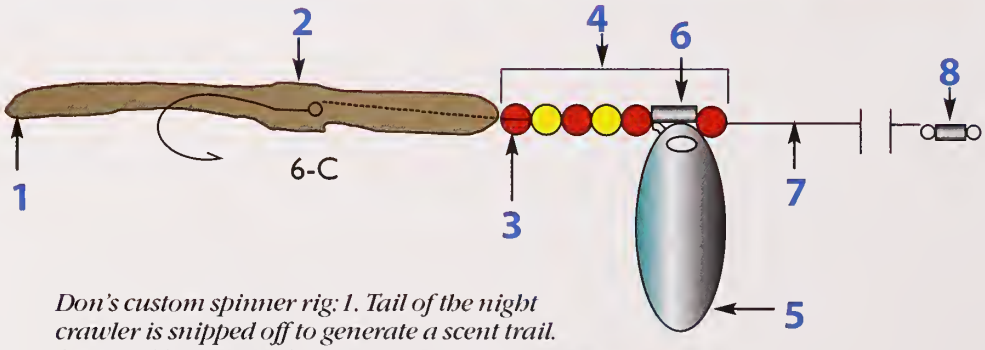
The sign on the door reads "WARNING! Retired Person on Premises, Knows Everything, Has Plenty of Time to Tell About It." It may serve as a caveat if you have forgotten how to chat without the help of a computer, but if you want to know more about how to catch walleye, this sign is like the capital "X" on a treasure map. It's not every day that you meet someone who catches big numbers of Virginia walleye, and it's even more rare to find someone who is willing to talk about it. Behind this door lives such a man. He doesn't claim to know everything about walleye fishing, but he does want you to benefit from what he has learned. The smell of fresh coffee and pipe smoke beckons, let's go on in.

Don Qualls began fishing for walleye in 1993. He was determined to learn how to catch walleye on purpose, so he began experimenting with several techniques that were supposed to catch walleye. Some 68 hours of fishing time elapsed before the first walleye came into his boat. Instead of becoming frustrated with his lack of success, Don used each fishing trip as a learning experience. He kept good notes, paid attention to details, and tested every aspect of his equipment and techniques, searching for the most effective presentation. Through seven years of trial and error, Don developed a system that works. How well does it work? Since 1993, more than 700 walleye have given his system the ultimate vote of confidence.

Don's system is based on two fundamentally sound approaches to walleye fishing—trolling and the use of spinner rigs (night crawler harnesses). Trolling allows you to cover more water and to keep your baits in the strike zone longer than casting. By using multiple rods, you can cover a variety of color options and presentation depths at the same time. When fish show a preference for a particular color or depth, all the rods can be switched to that combination to maximize success. Spinner rigs offer walleye the ultimate in sensory stimulation. A big, juicy night crawler looks, smells, and tastes like something good to eat, because it is. The revolving blades and colorful beads of the spinner rig offer added sound and sight appeal. Now that we understand why to troll with spinner rigs, let's look at the equipment we will need.

First and foremost, you will need a boat with a motor that can operate

at slow speeds for long periods of time. Don prefers a pontoon boat because of the extra space and stability it offers. Most anglers achieve slow speeds by using a second, smaller outboard "kicker" motor, or by attaching a trolling plate to the boat's main engine. You will need to outfit your boat with several necessities. A depth finder is an absolute must, because it is your window to the underwater world. You will depend on your electronics to search for bottom structure and for fish. A speedometer is also essential to help you maintain the ideal trolling speed. Some depth finders are equipped with a digital speedometer, but you can construct a simple device that uses a weight suspended in the water to determine relative speed. Rod holders not only secure your rods, but also free up your hands for other tasks, like re-baiting. Don recommends that rod holders be adjusted to hold the rod nearly horizontal, not upright. Holders should also keep rods pointed straight back off the stern or at a 45-degree angle from the gunnels of the boat. If you place the rod straight out from the gunnels at a 90-degree angle the rod may "sling shot" the rig away from a biting fish. You will also need a landing net with a long handle, a large hoop, and a deep bag. Don prefers a "walleye scoop," which features a slightly bent hoop that makes it easier to shovel up a fish at boatside.



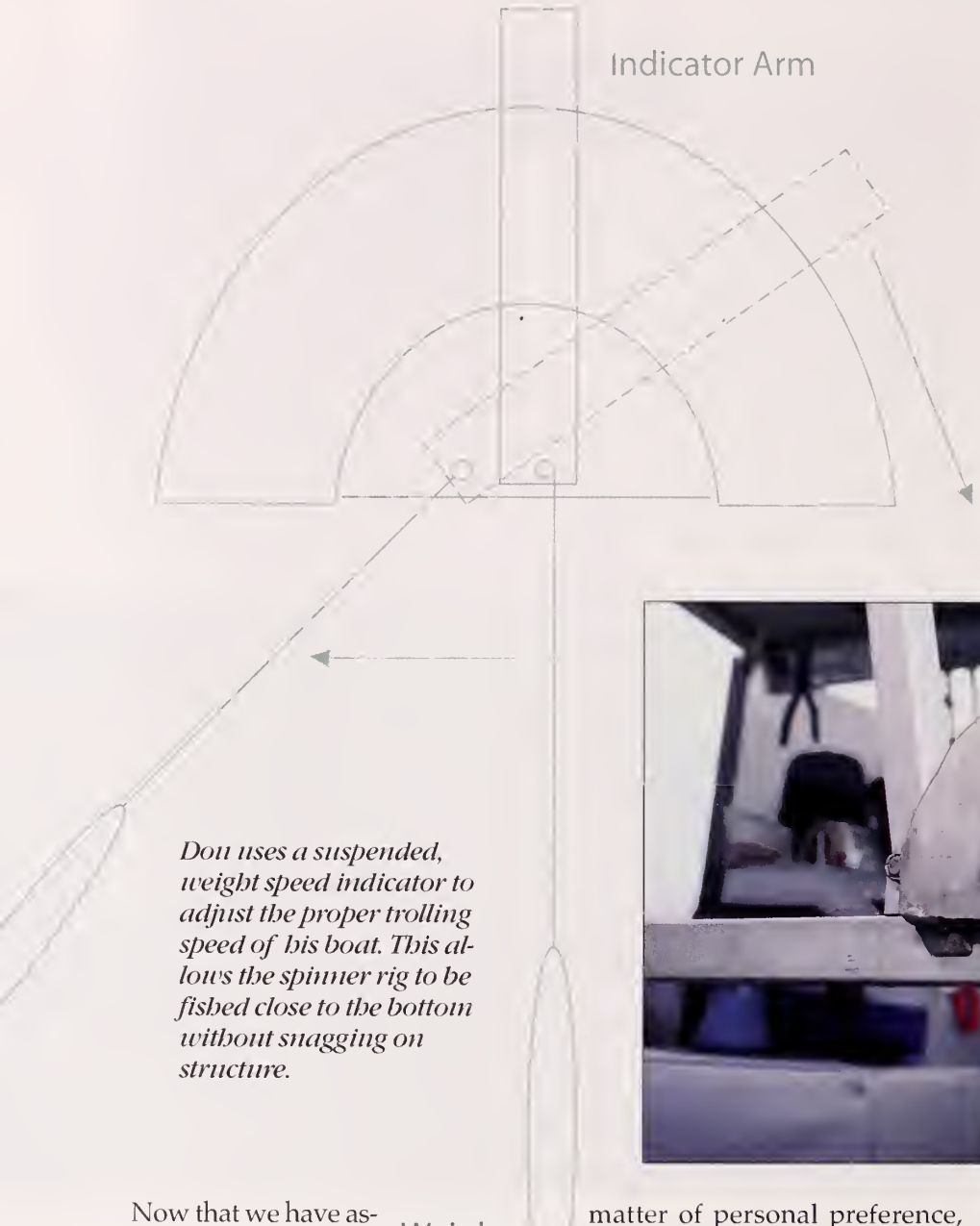
Don's custom spinner rig: 1. Tail of the night crawler is snipped off to generate a scent trail. 2. Use a Tru-turn™ (size 1) worm hook. 3. Double wrap the first size 6mm bead. 4. A total of six beads are needed. 5. A number 4 Colorado or Willow leaf blade is added (preferred colors are nickel, gold, copper, rainbow, and chartreuse). 6. A quick-change clevis is added. 7. Spiderwire™ Fusion™ fishing line holds the rig together. 8. A size 12-crane swivel is used to attach the spinner rig to the main line on the reel.

To bring that walleye to the net you need the right kind of tackle. The best trolling rods for this method are 8 feet or more in length, and have a fairly limber tip. A stiff rod makes it harder to "read" how the spinner is working and may offer too much resistance for a soft-biting walleye. Reels must have

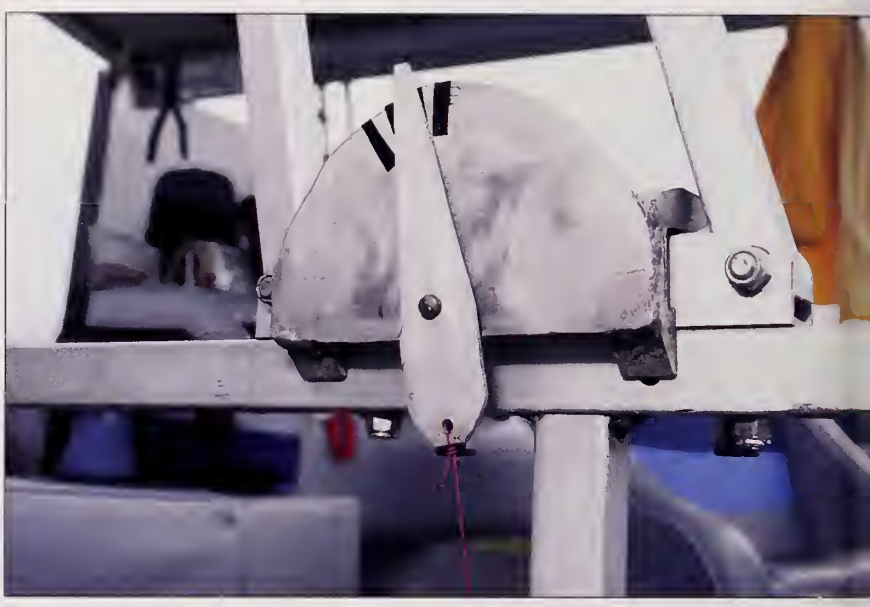
enough line capacity to hold both the leadcore line and the monofilament leader. Leadcore is bulky, so a reel that holds 300 yards of 20-pound test is about the right size. Don uses 18-pound test leadcore line to get the spinner rigs down to the right depth. Leadcore line is conveniently marked with a different color on each 10-yard increment. Accordingly, the term "color" is used to describe a 10-yard segment of line. You will need at least five colors of leadcore on each reel, and more like 10 colors if you plan to fish deeper than 30 feet. About 25 feet of 17-pound test monofilament should be added as a leader between the leadcore and your spinner rig. The long leader separates the spinner rig from the larger and more colorful leadcore line that might spook wary fish. A size 7 snap swivel at the end of the leader will help reduce line twist and allow you to change spinner rigs quickly and easily.

The spinner rig is the business end of the trolling system. Don ties his own spinner rigs using 12-pound test Spiderwire™ Fusion™ line. The new superlines offer more strength than monofilament lines of the same diameter. Don starts his rig with a single Truturn™ worm hook (size 1). This hook has a long shank with slices angled out to hold the night crawler in position. Don also likes the way the hook holds walleye in position for the net. He wraps line through the bead twice, to prevent it from sliding freely up and down the line. With that first bead placed out in front of the hook, the night crawler can be threaded past the hook and onto the line. The fixed bead will not push the crawler off the hook, and having the hook in the middle of the crawler makes it easier to catch short-striking walleye. Several more beads (size 6-mm) add a bit of color and separate the hook from the spinner clevis. Quick-change clevises are his favorites, because blade types or colors can be switched without changing the entire rig and re-baiting. A single bead placed in front of the clevis prevents debris from fouling it and stopping the blade. Don uses number 4 Colorado deep cup blades and number 4 willow leaf blades exclusively. At least five colors of blades are needed: hammered nickel, hammered gold, hammered copper, rainbow, and chartreuse. Don coats new blades with clear acrylic to help preserve the finish. A size 12 crane swivel terminates the rig, and fits nicely in the snap swivel waiting at the end of your leader.

Proper rod placement and the speed of the boat while trolling are very important. When it comes to tackle, Don prefers using leadcore line and reels that have enough line capacity so his custom spinner rig can be fished at depths where hungry walleye are located.



Don uses a suspended, weight speed indicator to adjust the proper trolling speed of his boat. This allows the spinner rig to be fished close to the bottom without snagging on structure.



Now that we have assembled the equipment, it's time to fish. This trolling method will catch walleye from April through October, but it really shines in July and August. This is primarily a daytime fishing method. It will work at night, but the cover of darkness makes it more difficult to keep the boat on course and the tackle in operation. Low light periods of dawn and dusk are always good times to be after walleye, but don't head in for lunch when the sun gets overhead. Don has enjoyed some incredible mid-day fishing with this method.

Where you fish will probably be a matter of personal preference, but it might be a good idea to start out in an area where the bottom is a consistent depth. This will allow you to get the hang of keeping several rigs out without having to adjust the depths to keep from snagging bottom. If you don't have a favorite walleye bank in mind, look for mid-depth flats, shale banks, and rock outcrops. Don catches most of his fish between 18 and 26 feet deep, which represents the typical range of the thermocline at South Holston Lake.

You can find the correct trolling speed by starting on a stretch of shoreline where the depth is about 18 feet. Put a ⅛ ounce sinker on the end of your leader (a rig will snag too easily during this test), put your motor in gear and let out the leader and two colors of leadcore. Adjust your speed until the sinker hits the bottom sporadically. If it hits the bottom steadily you are going too slow. Make a note of this speed, as it serves as a reference point. You may need to experiment at faster and slower speeds to see what works best on a given day, but this is the speed that will work most of the time.

Weather is always a factor to consider. Don relates that walleye can be caught rain or shine, but the prevailing weather affects his choice of blade colors. On bright days Don fishes mostly hammered silver and rainbow colored blades, and might try chartreuse. On cloudy days he prefers hammered copper or hammered gold, but may keep a rainbow blade on at least one rod. Regardless of weather conditions, if the fish are not biting what you are offering, experiment with different colors.

Don also offers some general advice for walleye anglers. Don't expect immediate success; be patient and persistent. Fish hard and think hard. When you find fish on your

electronics, or you just have a gut feeling that the fish are there, stay on them until you find the right color combination or the fish start feeding. You may fish an area for several hours without a bite and then catch fish steadily for the next hour. Or, you may have to move around until you find active fish. Incidentally, if you are catching catfish you are doing things right and you are in the right place; keep fishing and you will catch walleye. Get to know your trolling areas by watching your depth finder and studying the adjacent terrain above the water level. Try to draw an imaginary line on the water in front of your boat to guide your trolling pass. Learn how to control your boat and your tackle, and always try to find ways to improve your presentation. Remember, trolling is hard work, not pleasure fishing. The pleasure comes from putting that elusive walleye into the boat. □

Tom Hampton is a fisheries biologist with the Virginia Department of Game and Inland Fisheries.

The Walleye

by the Walleye Committee:
Ed Steinkoenig, Tom Hampton,
Steve Reeser, and Bob Greenlee
illustrations by Spike Knuth
photos by Dwight Dyke

The walleye is the largest member of the perch family. It is native to Southwest Virginia (Tennessee and Big Sandy drainage) and has been stocked into Virginia's rivers, lakes, and reservoirs since the mid-1960s. The Virginia Department of Game and Inland Fisheries (VDGIF) stocks approximately 1.5 million walleye fingerlings (average 1" in length) each year. Even though large numbers of walleye are stocked, the estimated annual catch is probably less than 10,000 fish! VDGIF estimates it costs approximately 19 cents to rear and stock a walleye. Why would we continue to stock them if they are expensive to raise and so few are caught? In addition to their angling value and excellent table fare, fisheries biologists believe walleye are important to the biological health of rivers, lakes, and reservoirs. They are efficient predators, controlling overabundant white perch and sunfish populations. Walleye readily adapt to a variety of different habitats. They have a rapid growth rate, and they grow to a large (trophy) size, providing unique angling opportunities for Virginia's anglers.

Biologists and anglers alike have learned a lot about walleye population dynamics in Virginia, including habitat types, forage availability, age and growth analyses, and angler harvest data. Lake sampling over several years has identified many good walleye populations throughout Virginia. In spite of the good populations, few anglers successfully catch walleye, largely due to lack of knowledge about habitats and movements.

To learn more about their lifestyles, fisheries biologists initiated a statewide study that included small lakes and large reservoirs.

There were several objectives to this study:

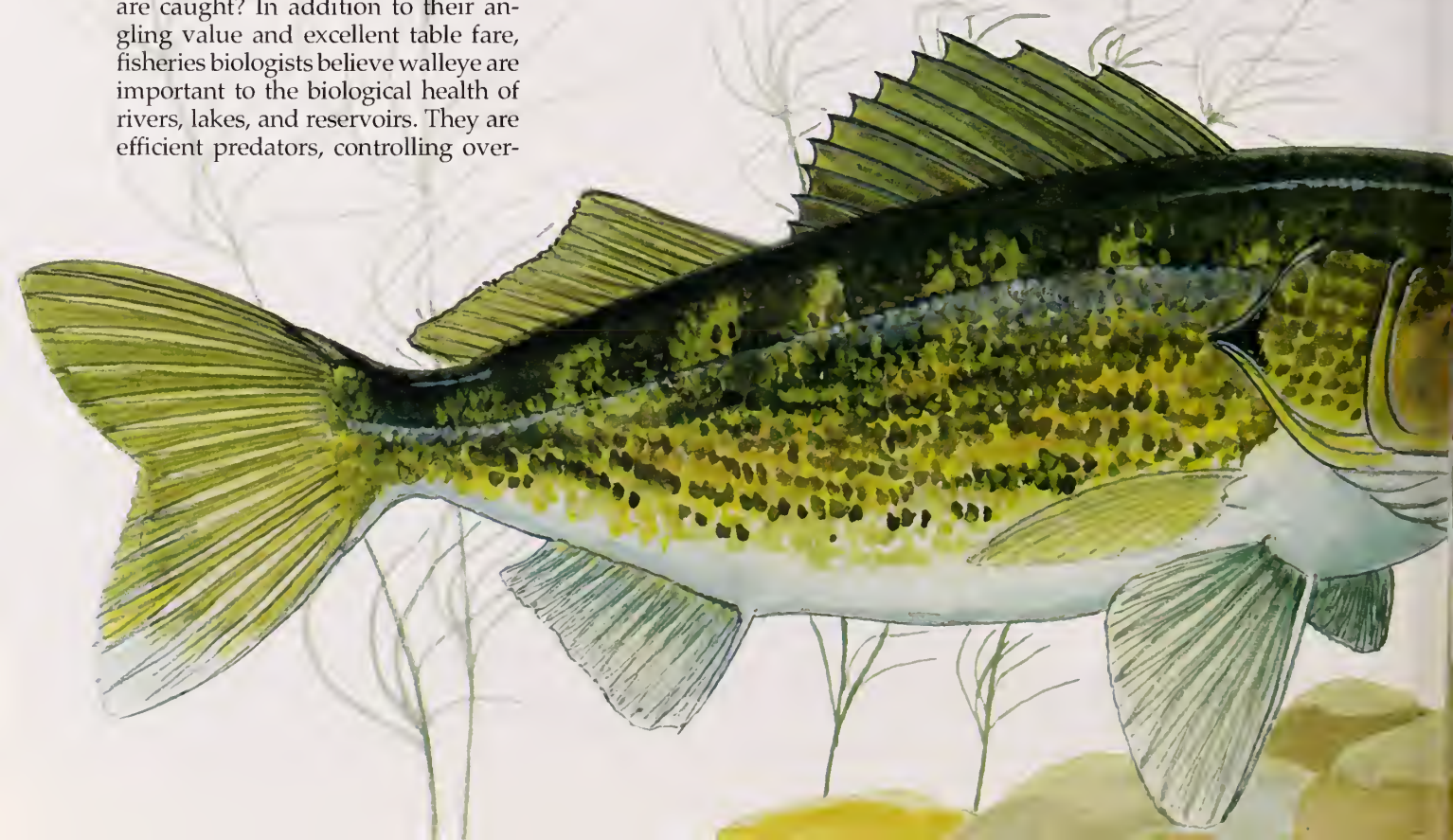
1.) Determine walleye habitat preferences and seasonal movements at three small impoundments (Brittle, Hungry Mother, Frederick) and one reservoir (Whitehurst) using ultrasonic tags.

2.) Determine walleye habitat preferences and seasonal movements in Lake Anna using radio tags.

3.) Determine angler exploitation (harvest) rates at lakes Whitehurst, Brittle, Frederick, and Hungry Mother.

4.) Publish reports and maps for angler use to identify walleye habits and to increase angler harvest.

Ultrasonic tags were surgically inserted into walleye in lakes Brittle, Hungry Mother, Frederick, and Whitehurst. Walleye were tracked weekly during the day for approximately 14 months. Nighttime move-



in Virginia

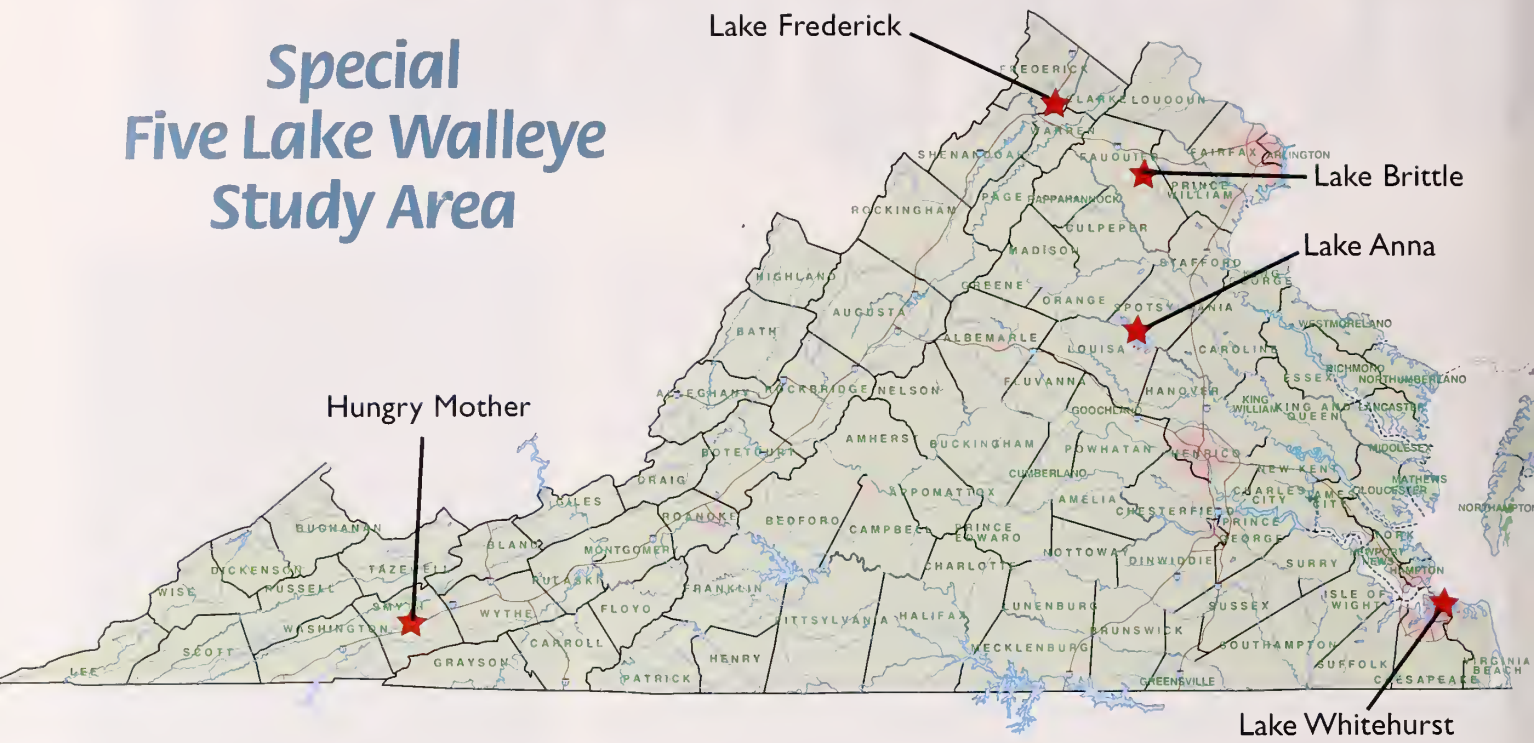
ments were determined by tracking for 24 hours one day each month. All tags had a unique aural code that made them self-identifying. Tags were temperature sensitive, measured 2.5 inches in length, and weighed approximately 0.25 ounce. Tags had a battery life of 12-14 months. Water temperature was measured at 3-foot intervals from surface to bottom during each tracking session, and water clarity was measured using a Secchi disk. Notations about habitat features (standing timber, rip rap, brush, rocky ledge, etc.) were associated with each walleye location.

Walleye movements and habitat preferences in Lake Anna were determined using temperature sensitive radio tags. Fourteen walleye were tracked weekly during the day for approximately 12 months. Tags had the same specifications described for the ultrasonic tags, except their radio signals were monitored from a moving boat, while the ultrasonic signals could only be monitored with a transducer held underwater from a boat that was not moving.

Walleyes were tagged with Floy anchor tags to determine angler exploitation (utilization) rates at all the study lakes. Each walleye was tagged with a Floy anchor tag that was marked with a unique numeric code and the message "Reward Call (XXX) XXX-XXXX." In addition to the Floy tagging, mail-in questionnaires were randomly handed out at each lake to estimate the non-reporting rate. Questionnaires stated that anglers would receive a reward for returning it. To receive the reward, the questionnaire had to be folded, stapled, stamped, and mailed to the local VDGIF Office. Data forms and information posters were distributed to local tackle shops and stores to promote tag returns. Anglers who returned walleye tags or questionnaires were given an embroidered baseball cap as a reward. □

Few anglers catch walleye in Virginia, even though they have been stocked throughout the state since the mid-1960's. Fisheries biologists initiated a statewide study, and they have been sampling rivers, lakes, and reservoirs to learn more about the lifestyles of walleye and to raise awareness of this illusive sport fish.

Special Five Lake Walleye Study Area

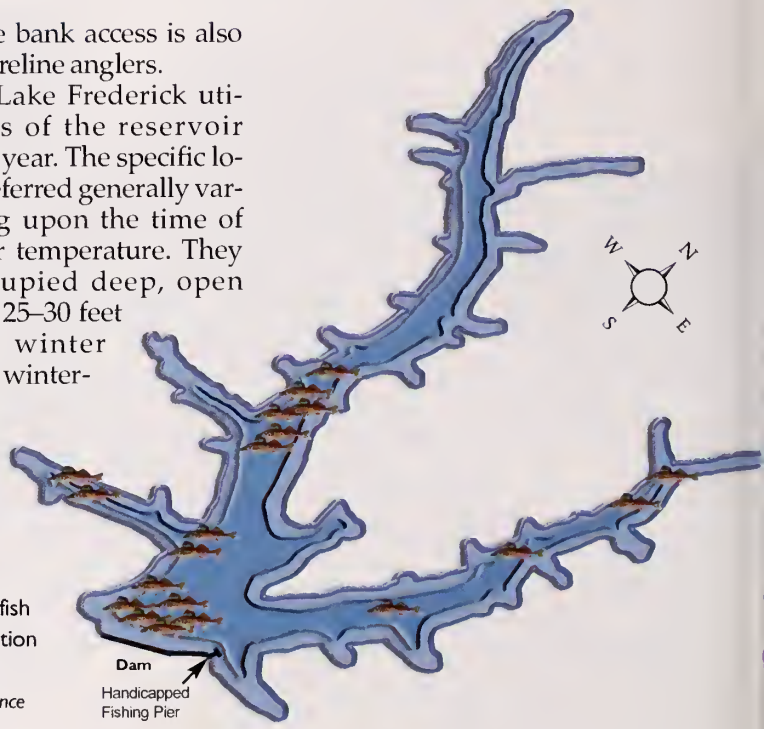


Lake Frederick

Areas of Lake Frederick where walleye were located, February–April.

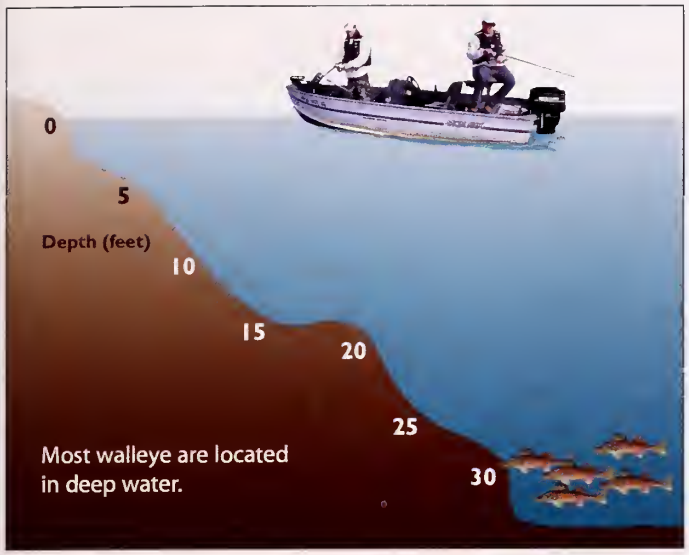
Lake Frederick is a 117-acre impoundment located in Frederick County, south of Winchester. The lake was acquired by VDGIF in the early 1980's, and opened to the public in February 1990. The lake is moderately productive and has a maximum depth of 35 feet. Initial fisheries management began with fish stocking as the reservoir came to full pool. Fish species that have been stocked in Lake Frederick include: largemouth bass, bluegill, redear sunfish, black crappie, walleye, northern pike, and channel catfish. Walleye and channel catfish populations continue to be maintained by annual stockings. Facilities at Lake Frederick include a parking lot, concrete boat ramp with courtesy dock, and a handicapped accessible fishing pier. Ample bank access is also available to shoreline anglers.

Walleye in Lake Frederick utilized all areas of the reservoir throughout the year. The specific locations they preferred generally varied, depending upon the time of year and water temperature. They generally occupied deep, open water between 25–30 feet during the winter months. These winter-

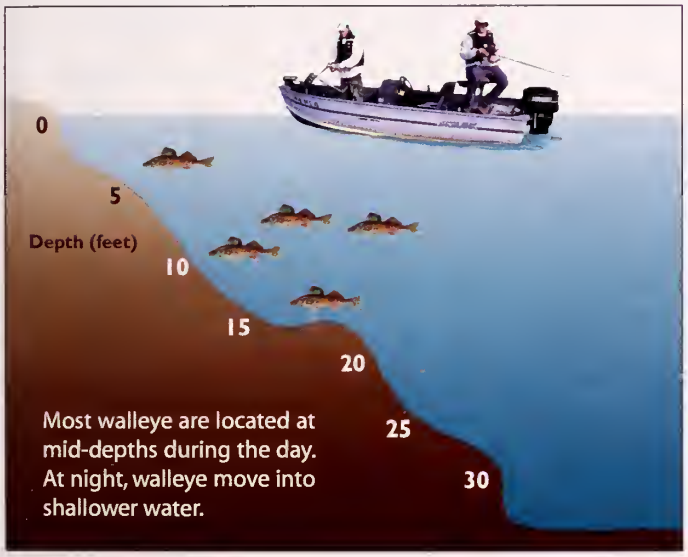


each fish = 5% of walleye location

The more fish in an area increases an anglers chance of catching a walleye.

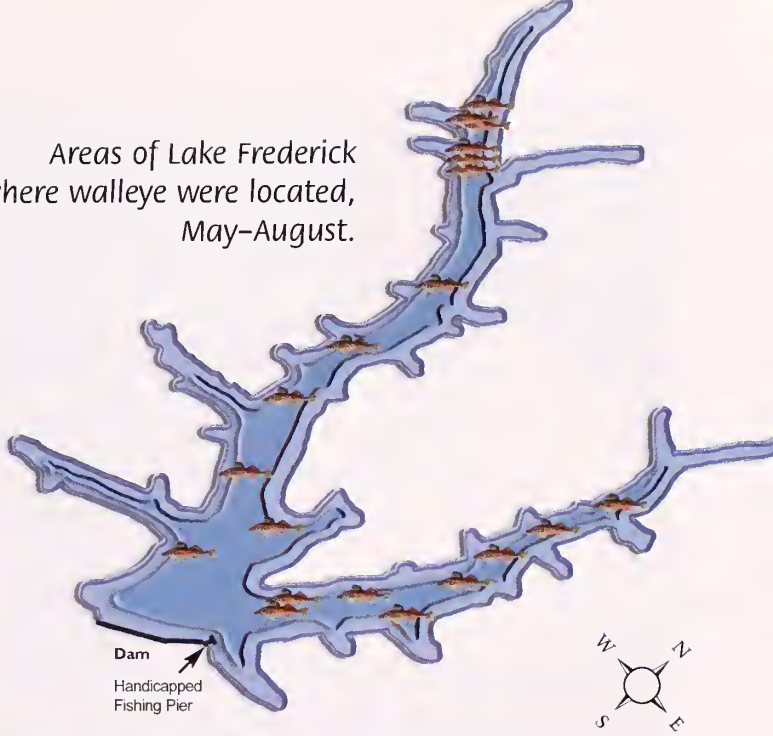


Depths walleye were located in Lake Frederick, November–January.



Depths walleye were located in Lake Frederick, February–June.

Areas of Lake Frederick where walleye were located, May–August.



Lake Frederick is the largest public fishing lake in the Shenandoah Valley. Facilities include ample parking, boat ramp, handicapped accessible fishing pier; and the lake is open 24 hours a day for anglers.

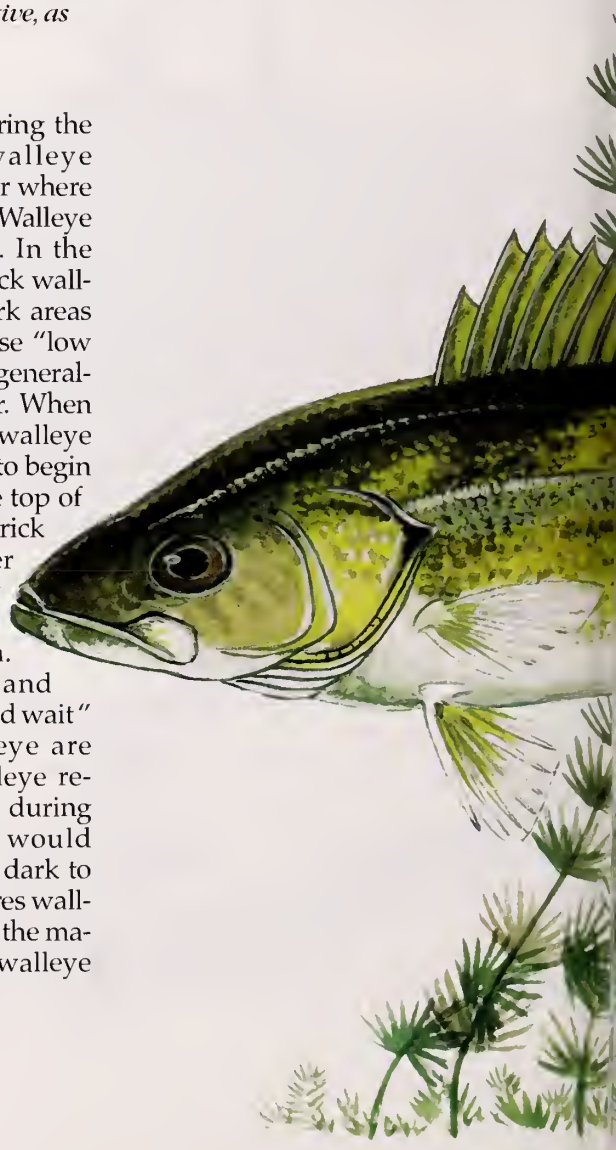
ing areas were located in the main channel at the lower end of the reservoir. In early spring, when water temperatures entered the upper 40's, walleye moved to two primary locations to attempt to spawn. Even though walleye in Lake Frederick do not spawn successfully, they do exhibit spawning behavior. Walleye spawn on rocky shoals or shorelines in natural lakes within their native range. The "rip-rap" across the breast of the dam of Lake Frederick is the kind of habitat that attracted walleye attempting to spawn. Another area where wall-

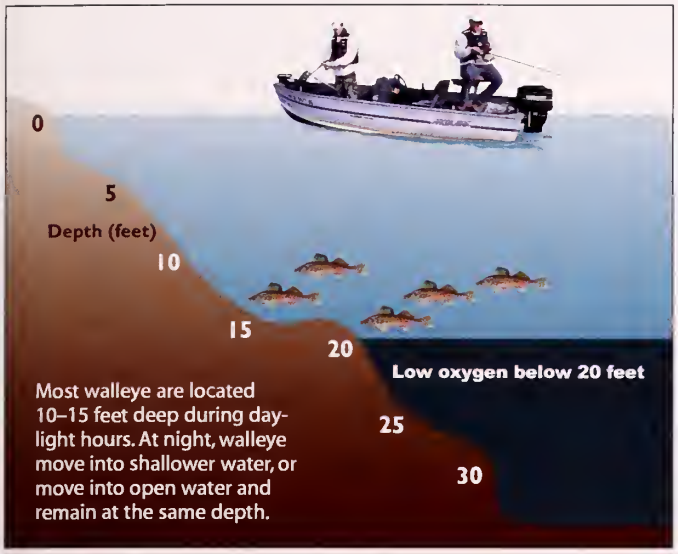
Anglers who target walleye will find they prefer the deeper and darker areas of the lake during the day. During the night hours walleye become more active, as they forage for food.

eye congregated during this period was midway up the west arm of the reservoir. From the pre-spawn period through early summer walleye were associated with the shoreline in water 2–15 feet deep. Walleye were generally located throughout the entire reservoir during the summer months. One particular area that had a concentration of walleye during this time period was at the head of the reservoir's western arm. An important fact for anglers to consider is that from July through early October Lake Frederick becomes thermally stratified. This means that water below 20 feet deep becomes void of dissolved oxygen. Walleye were never found in this zone of low oxygenated water. As fall approached and water temperatures decreased, walleye slowly moved back into the main body of the reservoir, seeking deeper water.

Throughout the year walleye preferred to hide in the submerged standing timber that covers much of the mid-depth regions of the reservoir. The exception was during the winter months when walleye sought deeper, "open" water where they became "suspended." Walleye are very sensitive to light. In the clear waters of Lake Frederick walleye preferred to hide in dark areas during daylight hours. These "low light" areas of the lake were generally full of submerged timber. When the water remained clear, walleye would wait until nighttime to begin to forage. Walleye are at the top of the food chain in Lake Frederick and feed primarily on other fish. The most abundant prey items in the lake were small crappie and sunfish. Unlike largemouth bass and chain pickerel that are "lie and wait" ambush predators, walleye are "cruising" predators. Walleye remained stationary in cover during daylight hours and then would move around the lake after dark to feed. On their nightly ventures walleye would sometimes swim the majority of the lake. Certain walleye would even return to the same "daylight" location day after day.

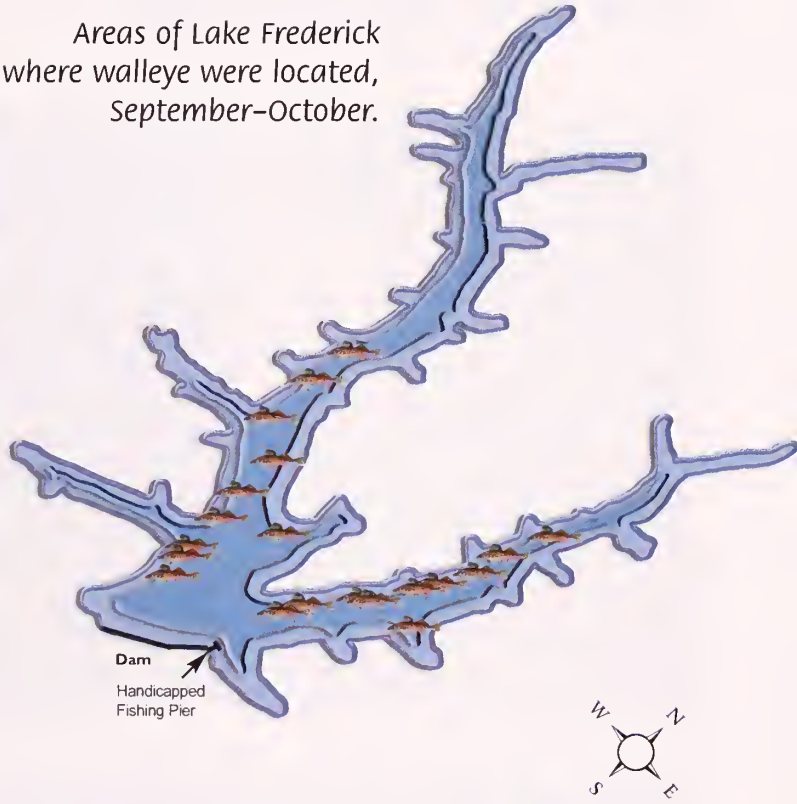
Fisheries biologists tagged walleye in Lake Frederick with external floy tags between 1997 and 1998 to determine the number of walleye that were being harvested each year from the lake. Anglers who caught a tagged fish were asked to report information about their catch. Date, time of day, location, depth, species fished for, and bait type used were the types of information recorded for each walleye caught by anglers. No trends were observed from the data collected by anglers who were successful in catching walleye. Based on the number of tags returned, it was estimated that a low percentage of the total walleye population in Lake Frederick is harvested each year. □



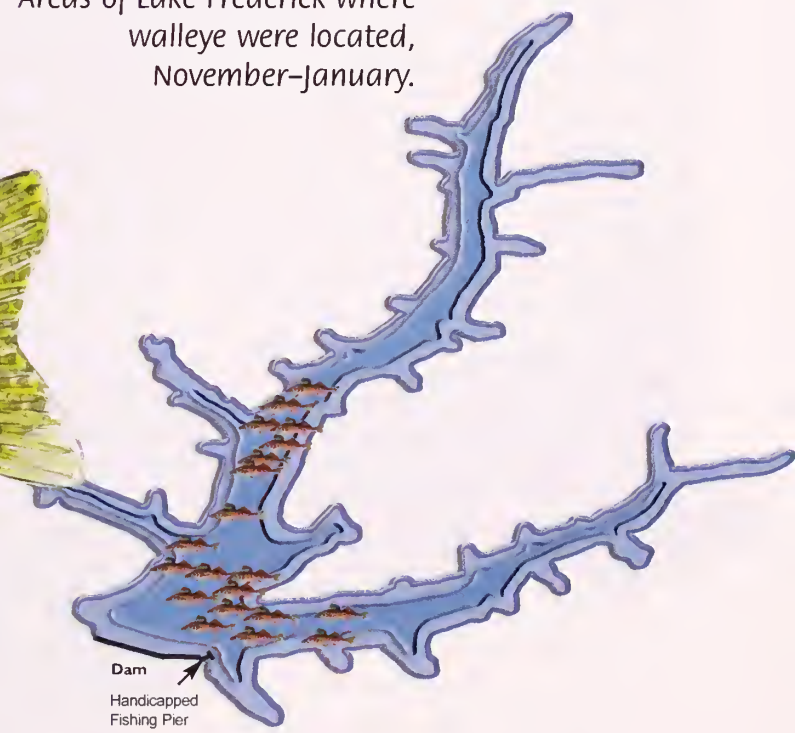


Depths walleye were located in Lake Frederick, July–October.

Areas of Lake Frederick where walleye were located, September–October.



Areas of Lake Frederick where walleye were located, November–January.



 each fish = 5% of walleye location

The more fish in an area increases an anglers chance of catching a walleye.

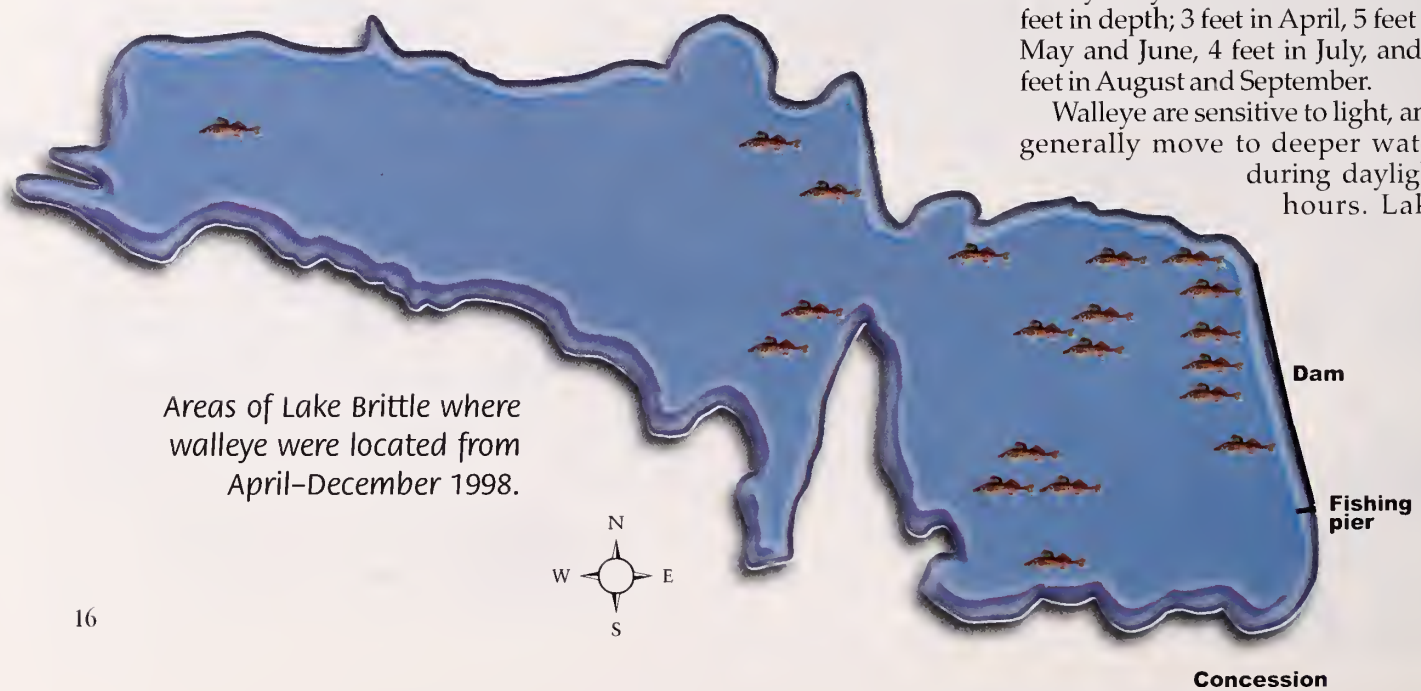
Lake Brittle

Lake Brittle is a 77-acre impoundment located in Fauquier County, Virginia. The lake was impounded in 1953 and is owned by VDGIF. Maximum depth is 25 feet with a mean depth of 6 feet. The lake is fertilized with a liquid fertilizer (10-34-0) to increase productivity. Fishing pressure is high, averaging 636 hrs/acre, or 10,000 fishermen visits/year. The lake is thermally stratified, and there is no oxygen below 10 feet from May through October. Walleyes have been stocked into Lake Brittle since 1979. The stocking rate has been 50/acre. Other species stocked into Lake Brittle include: largemouth bass, bluegill, redear sunfish, channel catfish, blue catfish, flathead catfish, muskellunge, and tiger muskellunge.

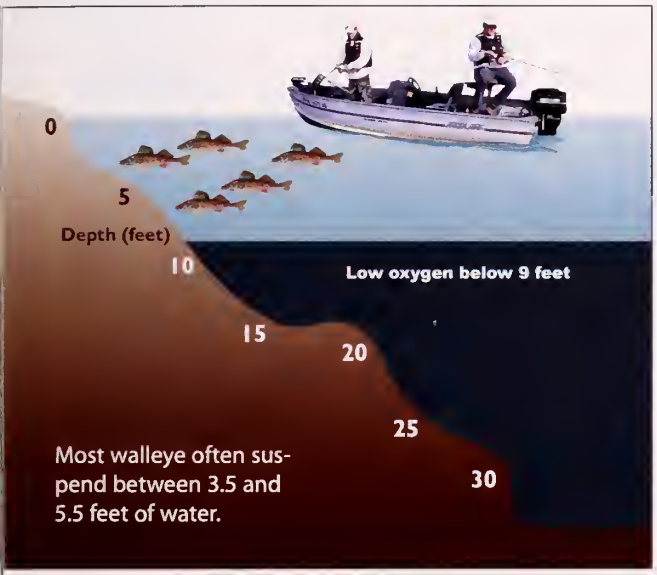
Walleye were very active during the study, almost to the point of continuous movement. However, they did exhibit a preference for the lower (deeper) end of the lake. Walleye were located in water depths ranging from 1-13 feet, and temperatures ranging from 45-87°F. Fish were usually located in open, featureless water. Occasionally they were near submerged brush (fish attractor), but at least 90 percent of the time they were not oriented to any structure. During the summer months they were located at the thermocline (4–5 feet), where water temperature is cooler and there is still adequate oxygen. Water visibility (clarity) during summer months was less than 30 inches, and walleye were as active during daylight hours as they were at night. No walleye were located in the upper part of the lake during the summer months (June–August), and were found in the upper lake only 6 percent of the time throughout the year. They were mid-lake about 31 percent of the time. Most of their time was spent in the lower lake (63 percent), specifically on the north end of the dam in approximately 5 feet of water. The walleye stayed in water between 3–5 feet in depth; 3 feet in April, 5 feet in May and June, 4 feet in July, and 4 feet in August and September.

Walleye are sensitive to light, and generally move to deeper water during daylight hours. Lake

Nestled just south of our Nation's Capital, Lake Brittle offers a peaceful setting for anglers and wildlife watchers alike.



Areas of Lake Brittle where walleye were located from April–December 1998.



Depths walleye were located in Lake Brittle, in 1998.

Brittle is fertilized during the summer, which gives the water a green, "pea soup" color and reduces water clarity. Sunlight generally doesn't penetrate deeper than 25 inches, which is probably why Lake Brittle walleye are found in shallow water.

Fisheries biologists tagged 72 walleye at Lake Brittle in 1998 with external Floy tags to estimate the number of walleye harvested from angling. Walleye were collected with trap nets and by electrofishing during March and April. Tags from six of the 72 tagged walleye were returned during calendar year 1998, for an estimated angler harvest rate of 8.3 percent. Two anglers who fish Lake Brittle almost daily during the spring caught five of these. They were caught between the hours of 11:00 a.m. and 1:00 p.m. March and April are the best months to catch walleye at Lake Brittle. □


each fish = 5% of walleye location

The more fish in an area increases an anglers chance of catching a walleye.

Various tagging devices are used by fisheries biologists to track the movements and habitat preferences of walleye. This allows biologists to follow individual walleye over long periods of time to collect important data.

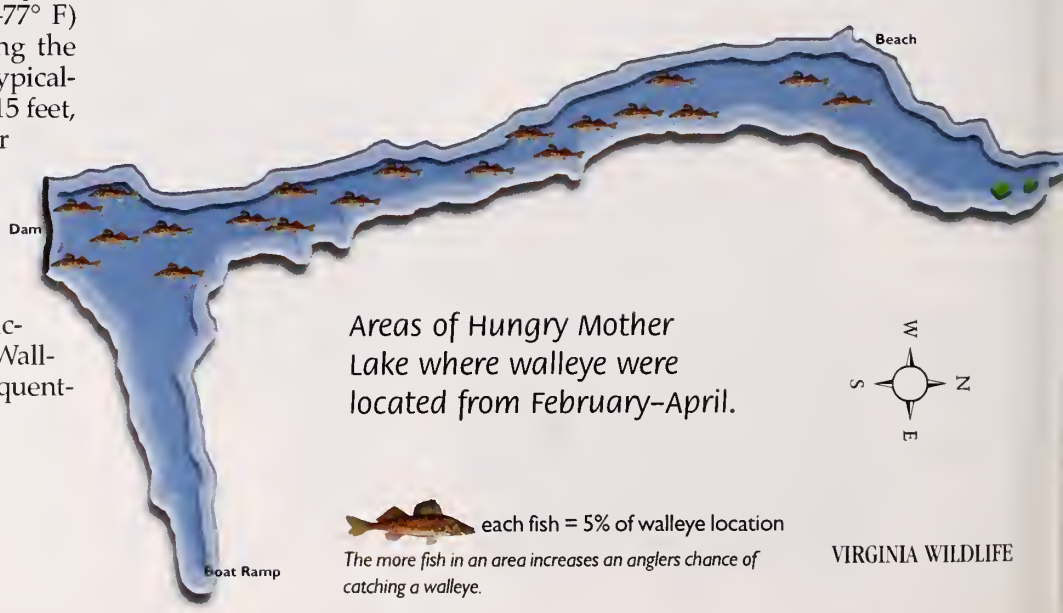
Hungry Mother Lake

Hungry Mother Lake is a 108-acre impoundment located within Hungry Mother State Park in Smyth County. The lake has a maximum depth of 32 feet and a mean depth of 15 feet. The impoundment offers a diversity of shoreline habitats, ranging from gentle sloping banks with tree and brush cover to steep rock bluffs. The water is moderately clear, with normal visibility ranging from about 3 feet in spring to over 10 feet in late summer.

Walleyes were first stocked into Hungry Mother Lake in 1981 to control an overabundant sunfish population. Walleye effectively reduced the sunfish population, and a popular sport fishery developed. Alewives were stocked in 1988 to provide supplemental forage. Periodic fingerling stockings maintain the walleye fishery.

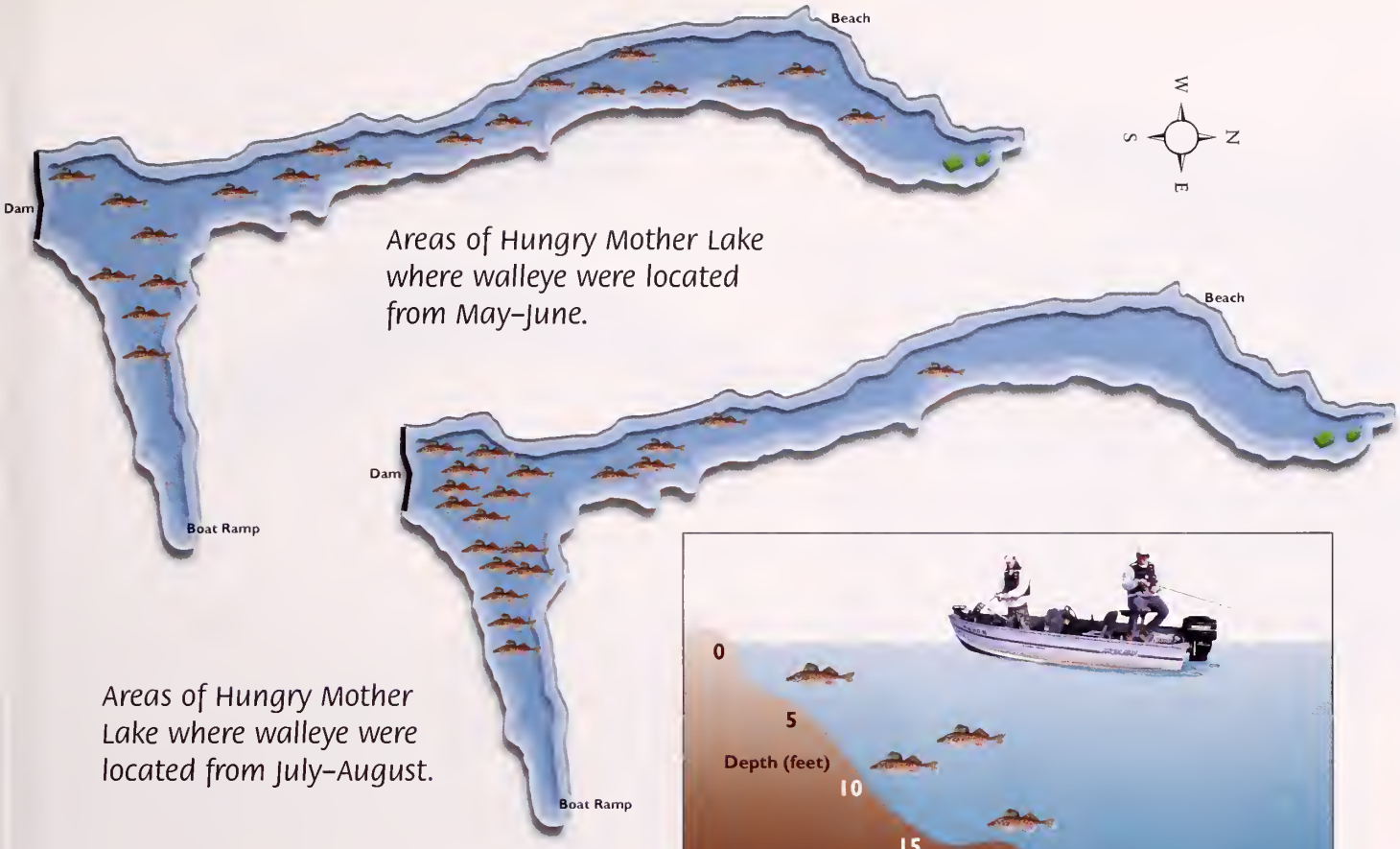
The two-year tracking study, June 1998 through June 2000, yielded data from 1,275 walleye locations. Walleye location within the reservoir changed dramatically through the seasons. Tagged fish congregated in the lower section of the reservoir during the winter and summer, but spread throughout the lake during the spring and fall. Walleye occupied a range of temperatures (41–77° F) and depths (0–28 feet) during the study period. Although they typically inhabited depths less than 15 feet, walleye moved to deep water during the winter months. Overall, submerged trees were the favorite habitat type (54 percent of locations), followed by open water without any visible structure (40 percent of locations). Walleye utilized rock habitat infrequent-

When it comes to bringing home dinner, walleye are hard to beat.



Areas of Hungry Mother Lake where walleye were located from February–April.

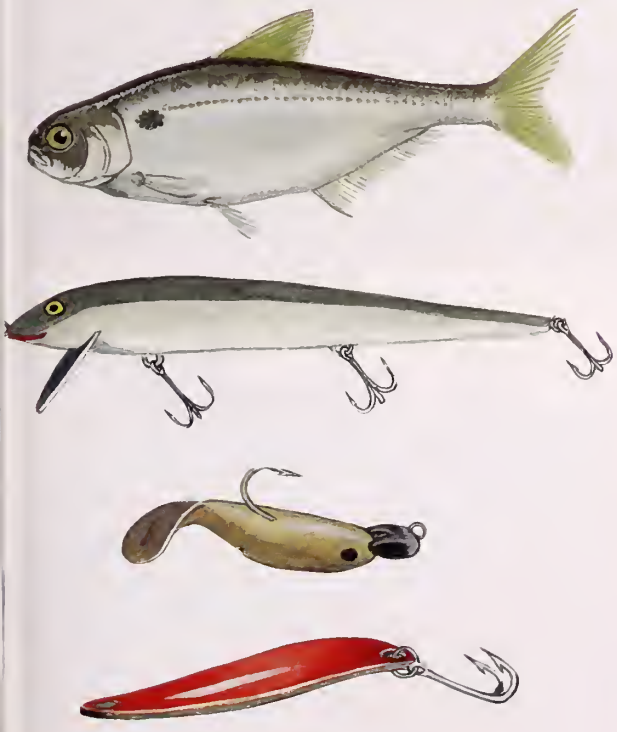
The more fish in an area increases an anglers chance of catching a walleye.



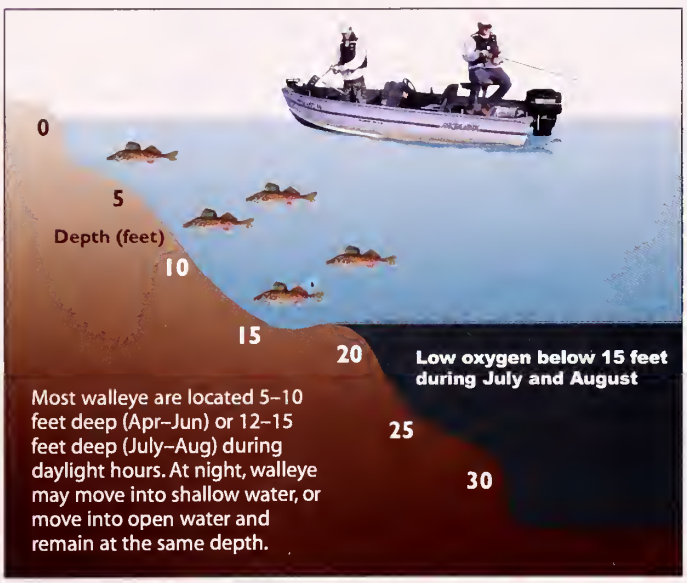
Areas of Hungry Mother Lake where walleye were located from May–June.

Areas of Hungry Mother Lake where walleye were located from July–August.

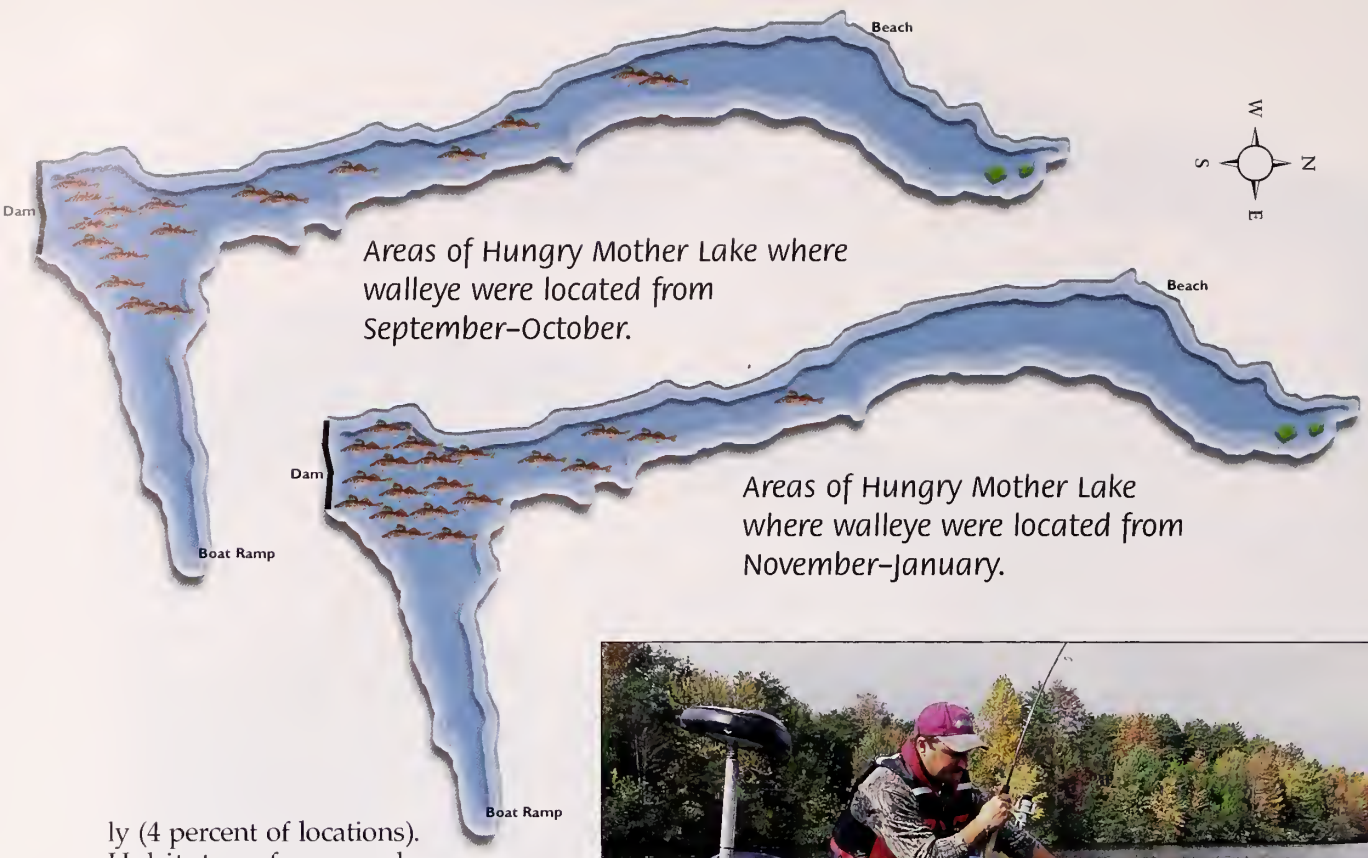
Depths walleye were located in Hungry Mother Lake, February–March and September–October.



Top to bottom: Whether you use live bait, like shad, or artificial lures (like crankbaits, jigs, and spoons), the key to catching walleye is good presentation of your bait or lure.



Depths walleye were located in Hungry Mother Lake, April–August.



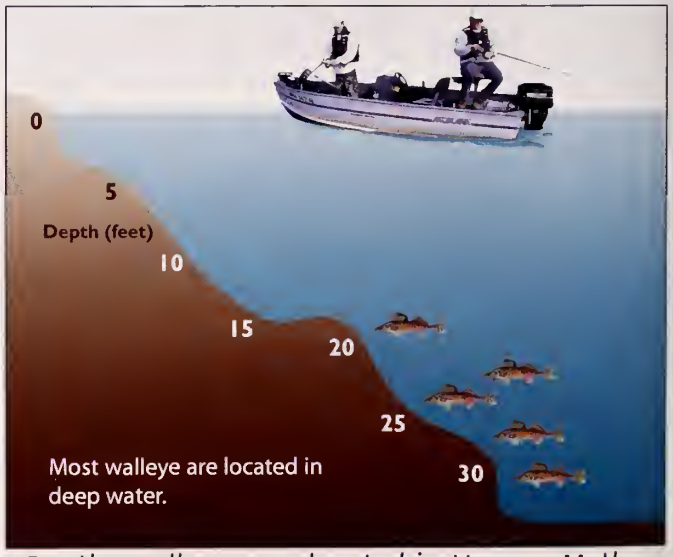
Areas of Hungry Mother Lake where walleye were located from September–October.

Areas of Hungry Mother Lake where walleye were located from November–January.

ly (4 percent of locations). Habitat preference also changed with the seasons. During the summer, most walleye related to submerged trees (70 percent), but during the winter more than 80 percent were located in open water. Daily walleye movements peaked at dusk and dawn with very few exceptions, even when the lake was covered by ice. Notable daytime movements were rare, unless heavy clouds, wind, or rain obscured the sunlight. Core activity areas were evident for all tagged fish. Individual walleye often utilized the same feeding or resting site repeatedly. One particular submerged tree was visited by nearly all of the walleye tracked during the study.

One hundred walleye were fitted with Floy reward tags in 1997. Anglers returned tags from 32 fish that year. This represents a fairly high success rate for walleye angling. Most successful anglers fished at night, from a boat, with artificial lures and specifically targeted walleye. Surprisingly, 48 percent of the walleye landed by anglers were released. April, May, and June are the best months to fish for Hungry Mother walleye. □

Located in Southwest Virginia, Hungry Mother Lake not only offers anglers a great place to fish for walleye, but an opportunity to explore one of Virginia's premier state parks.



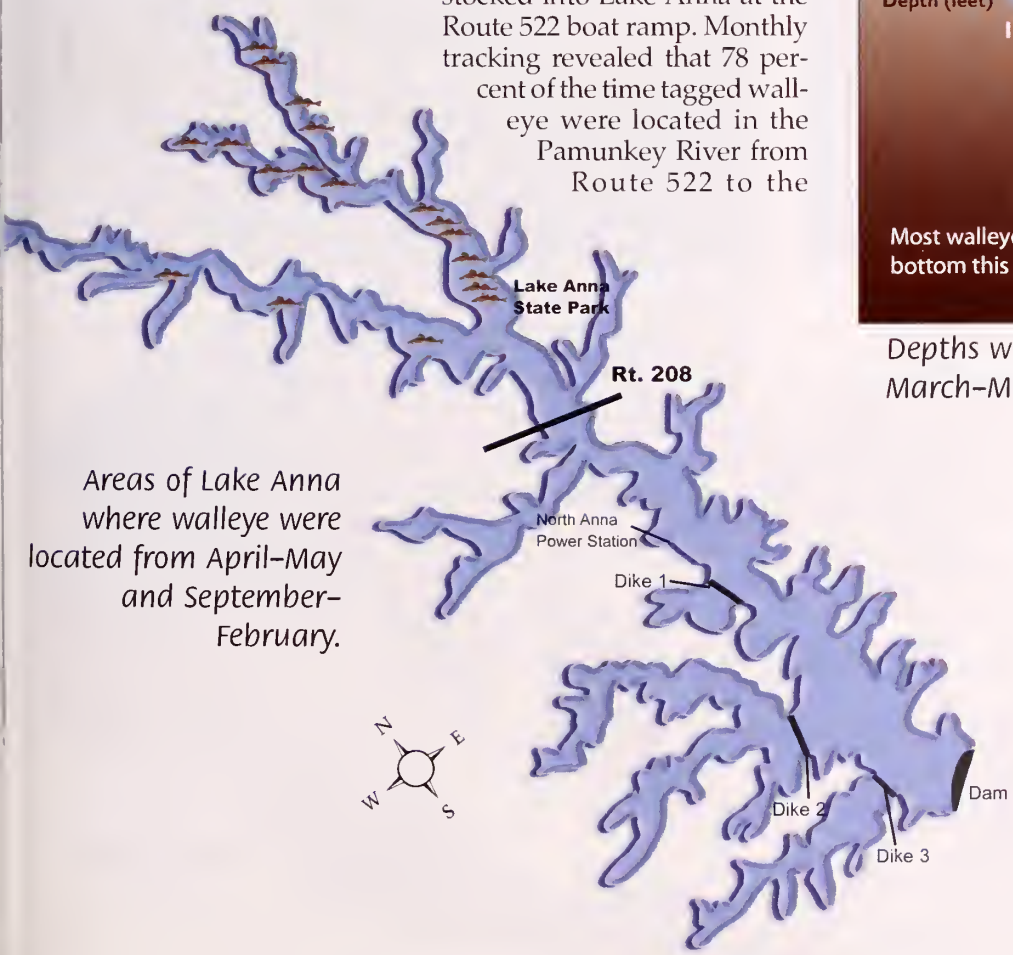
Depths walleye were located in Hungry Mother Lake, November–January.

Lake Anna

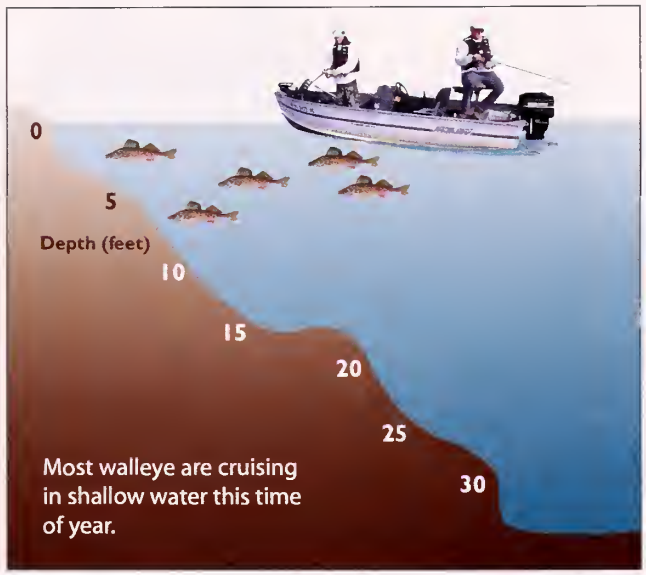
Lake Anna is a 9,600-acre impoundment owned by Dominion Virginia Power. The lake is located in Spotsylvania, Louisa, and Orange counties and serves as cooling water for the North Anna Nuclear Power Station. Maximum depth is 80 feet with a mean depth of 25 feet. The lake weakly stratifies, and water temperature does not change dramatically from the surface to the bottom. Surface temperatures in the summer approach 90°F. Anglers and pleasure boaters heavily use the reservoir. Fishing pressure averages 180 hours per acre or 32,000 fishermen visits each year. The aquatic weed *Hydrilla verticillata* became established in Lake Anna during the late 1980's.

Fish stocking began in 1972 with the introductions of largemouth bass, bluegill, redear sunfish, and channel catfish. Subsequent stockings of striped bass and largemouth bass (both Florida and northern strains) were made. Threadfin shad and blueback herring were successfully introduced in the 1980s. Walleye have been stocked into Lake Anna annually since 1975. Stocking rates have been highly variable, ranging from 25–125 fingerlings per acre. Walleye fry were stocked in 1981, 1984, and 1985.

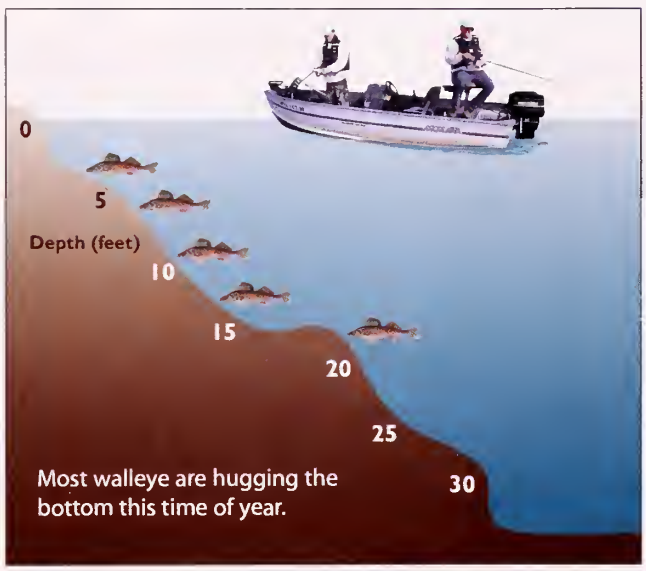
Walleye movements in Lake Anna were minimal, restricted largely to the immediate area near the stocking site. Prior to the study, all walleye were stocked into Lake Anna at the Route 522 boat ramp. Monthly tracking revealed that 78 percent of the time tagged walleye were located in the Pamunkey River from Route 522 to the



Areas of Lake Anna where walleye were located from April–May and September–February.



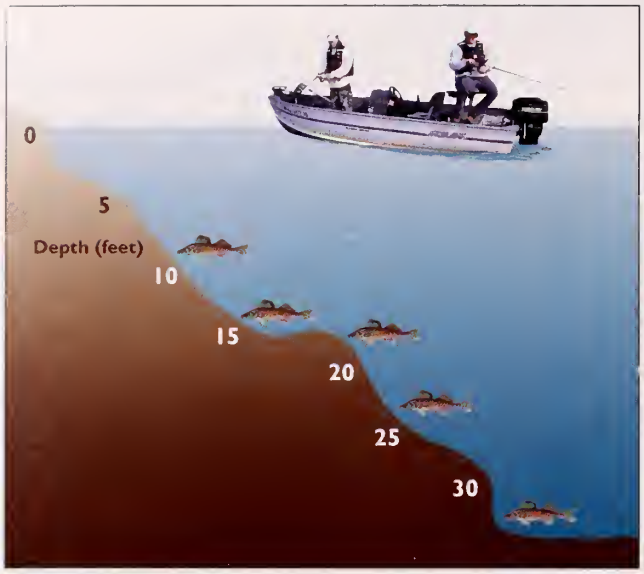
Depths walleye were located in Lake Anna, December–February.



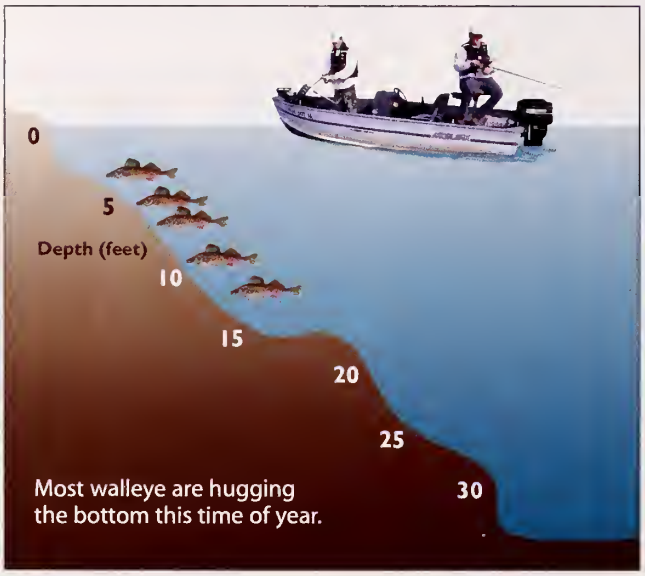
Depths walleye were located in Lake Anna, March–May.

each fish = 5% of walleye location

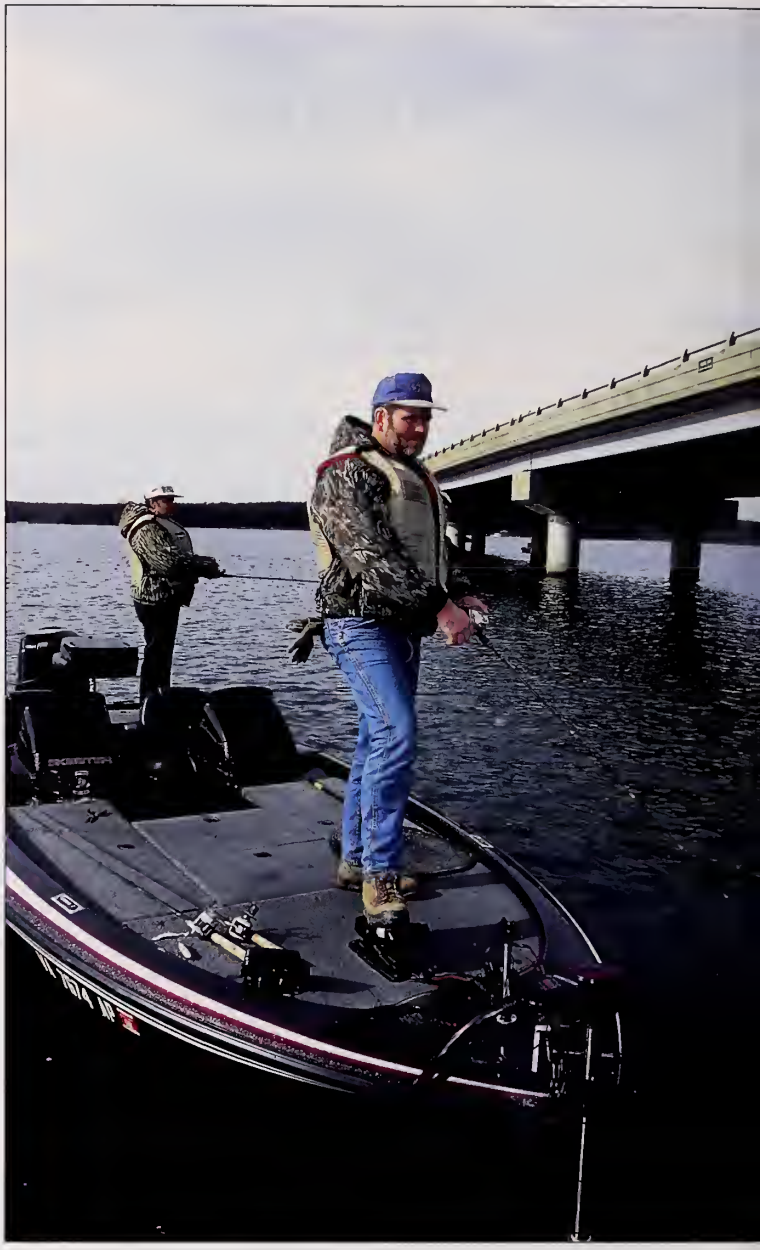
The more fish in an area increases an anglers chance of catching a walleye.



Depths walleye were located in Lake Anna, June–August.



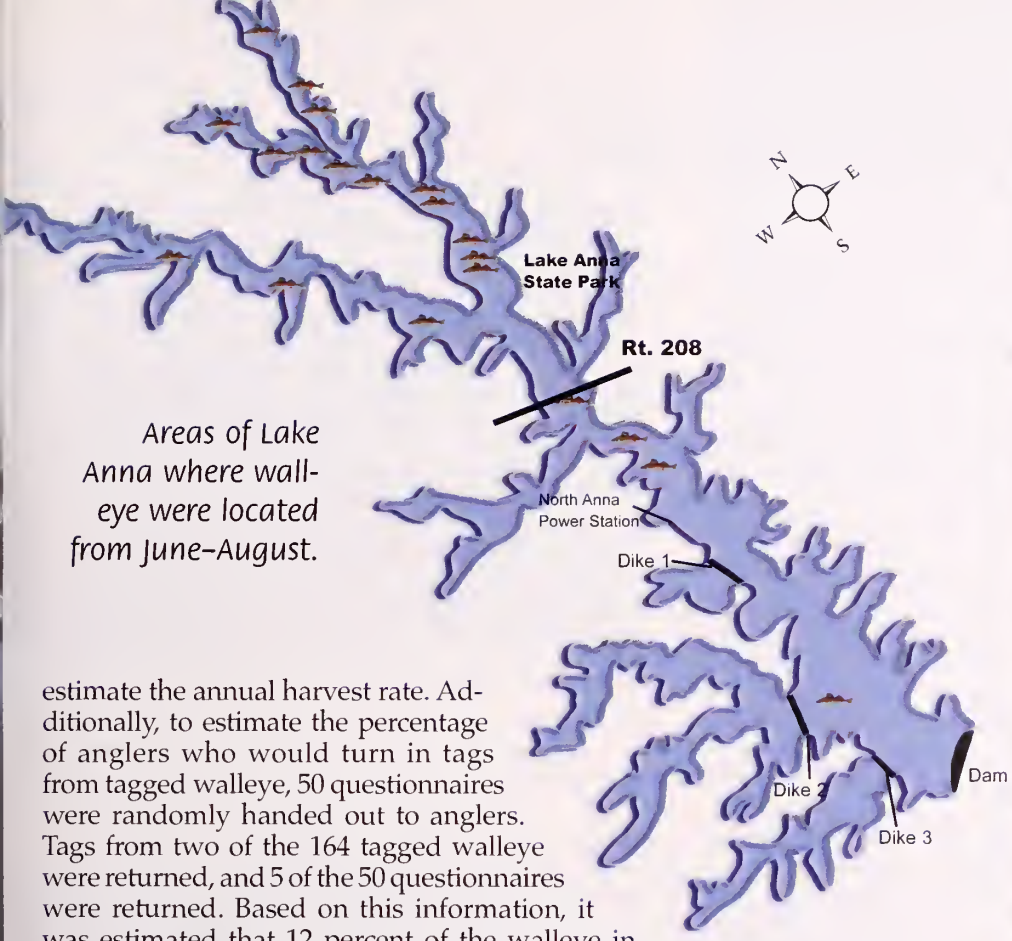
Depths walleye were located in Lake Anna, September–November.



Fisheries biologists suggest anglers fishing for walleye should concentrate their efforts from the Rt. 208 bridge to the upper end of the lake.

"splits" (within 2 miles of the stocking site); 14 percent of the time they were in the North Anna River from Route 522 to the splits; 6 percent of the time they were between the splits and Route 208, and 2 percent of the time they were located below Route 208. Walleye did not orient themselves to underwater structures at Lake Anna. They were located in water depths from 1–36 feet, and temperatures 40–86°F. Fish were usually located in open, featureless water, usually near (below) a school of fish. The schools were assumed to be shad (gizzard, threadfin, blueback herring) or white perch. They were in open, featureless water more than 68 percent of the time. Occasionally they were near a point of land (11 percent) or near the creek channel (6 percent). During the summer months they were in water depths between 14-32 feet (19 feet average). The rest of the year they occupied water less than 10 feet deep (on average). Tagged walleye were located in 85°F water in July–August, 70°F in September –October, and 43°F during the winter months.

One hundred sixty-four walleye were tagged at Lake Anna in 1999 to

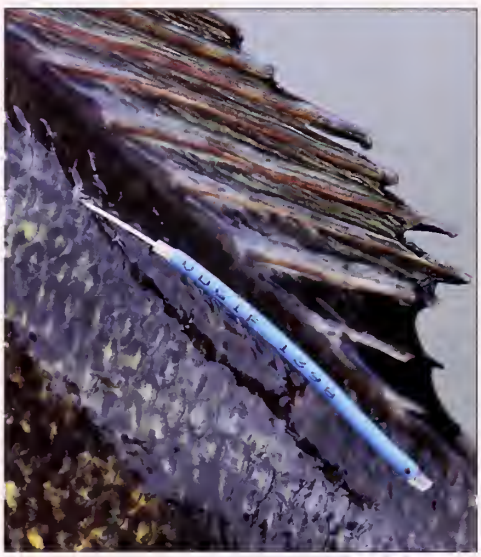


Areas of Lake Anna where walleye were located from June–August.


each fish = 5% of walleye location

The more fish in an area increases an anglers chance of catching a walleye.

estimate the annual harvest rate. Additionally, to estimate the percentage of anglers who would turn in tags from tagged walleye, 50 questionnaires were randomly handed out to anglers. Tags from two of the 164 tagged walleye were returned, and 5 of the 50 questionnaires were returned. Based on this information, it was estimated that 12 percent of the walleye in Lake Anna are harvested each year. January–May are the best months to catch walleye at Lake Anna. □



To help track walleye, fisheries biologists placed Floy anchor tags, marked with a unique numeric code and the message "Reward Call (xxx)xxx-xxxx." Anglers who return the tags are given an embroidered baseball cap as a reward.

Lake Whitehurst

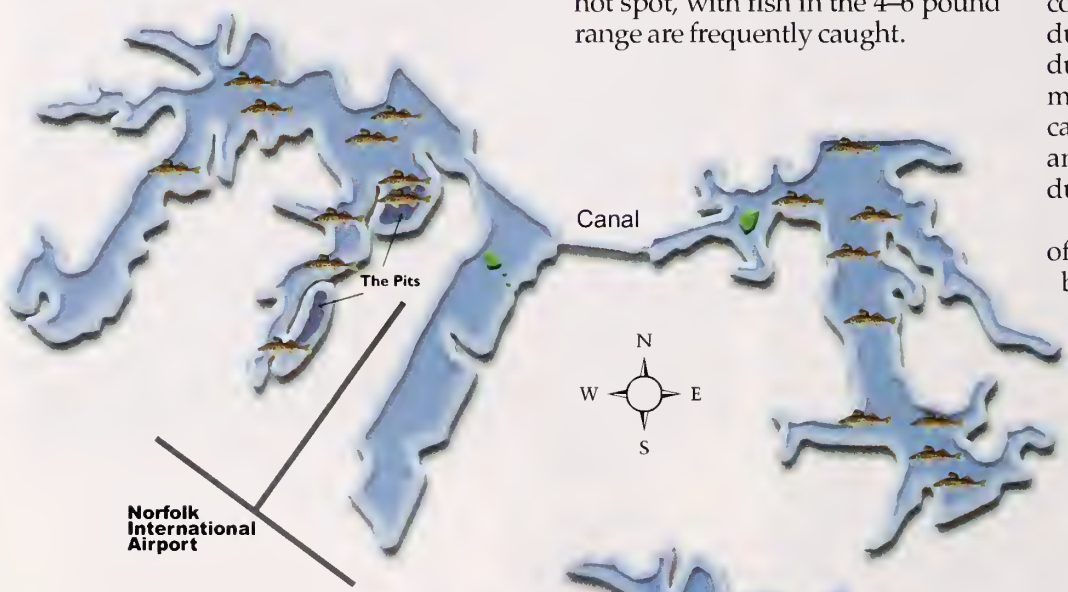
Lake Whitehurst is a 458-acre water supply reservoir owned by the City of Norfolk, and it is located on that city's border with Virginia Beach. The lake is separated into two sections by a canal; the Lake Whitehurst section is located in Norfolk, and the Little Creek Reservoir section located in Virginia Beach. The two sections are managed together as Lake Whitehurst. The average water depth is 5 feet with depths generally ranging up to 9 feet, although several pits in the Lake Whitehurst section provide habitat to 32 feet. In addition to walleye, the lake supports populations of largemouth bass, chain pickerel, bluegill, redear sunfish, black crappie, and white catfish. Also, a few striped bass remain in the lake, having been stocked in the past.

Two public boat launch areas provide access to the lake. A dirt ramp off Northampton Boulevard provides boat access to the Little Creek section, and two paved ramps off Shore Drive provide boat access to the Lake Whitehurst section. A Norfolk City boat permit is required for boats with gas motors up to 12 horsepower allowed. Bank fishing is restricted to piers available at the Shore Drive access area (fee is required) and a pier at the Norfolk Botanical Gardens (admission fee required). The lake is closed at night.

Walleye have been stocked into Whitehurst annually since 1974, and the lake has since become a walleye hot spot, with fish in the 4–6 pound range are frequently caught.

Beginning in March 1998, a one-year walleye telemetry study was conducted on the lake during which time fish locations were monitored weekly. In the fall and winter months walleye were located throughout the Little Creek section and in the main portion of the Whitehurst section. These fish were found at depths ranging from 2–9 feet—the maximum depth available in these sections of the lake. During the spring and summer, walleye were located throughout the Little Creek section; however, in the Whitehurst section they were most likely to be located in the deep pits west of the Norfolk International Airport runway. Walleye were limited in their ability to seek out the cooler, deeper waters of "The Pits" due to the lack of dissolved oxygen during warm spring and summer months. Walleye were, therefore, located primarily at depths of 2–8 feet, and occasionally down to 15 feet during these months.

Walleye were generally located in offshore areas having flat or sloping bottom profiles. Walleye were not generally associated with any particular structure type, such as downed trees or rock piles. However, those that were oriented to structure were more likely to be located next to stumps or logs during the winter. While anglers catch walleye

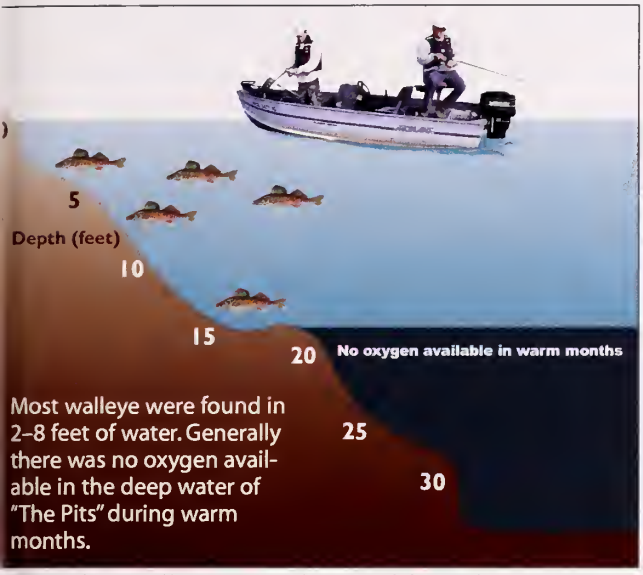


Areas of Lake Whitehurst where walleye were located from March–August.

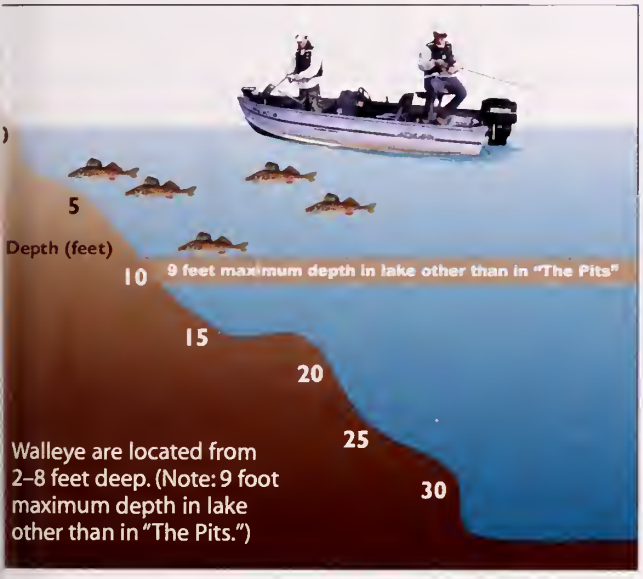
Areas of Lake Whitehurst where walleye were located from September-February.


each fish = 5% of walleye location

The more fish in an area increases an anglers chance of catching a walleye.



Depths walleye were located in Lake Whitehurst, March–August.



Depths walleye were located in Lake Whitehurst, September–February.

throughout the year, spring offers the best fishing in Whitehurst. Walleye are caught by deep-jigging with spoons, jigs, and grubs, by casting or trolling crankbaits, and by using night crawlers on bottom walker rigs. Interestingly, walleye in Whitehurst are caught throughout the day, with at least one angler claiming maximum success between the hours of 11:00 a.m. and 1:00 p.m. Walleye in Lake Whitehurst did not follow typical walleye activity patterns reported for other lakes throughout the United States. □

Virginia Walleye Fact Sheet

- The walleye is a member of the perch family. Its name comes from the large, glossy eyes.
- Walleye are native to Southwest Virginia (Tennessee and Big Sandy drainage). They have been stocked into rivers, lakes, and reservoirs throughout the state.
- The Virginia Department of Game and Inland Fisheries stocks approximately 1 million walleye each year. Average stocking size is 1.3 inches in length.
- Although natural reproduction does occur in some Virginia rivers, survival is too low to maintain healthy populations. Supplemental stocking is necessary in most water bodies.
- An estimated 27,900 anglers (U.S. Fish and Wildlife Service, 1991) fish for walleye in Virginia.
- Virginia walleye are fast-growing, averaging 10" in length at age 1, 15" at age 2, and 18" at age 3.
- A typical 15" walleye in Virginia weighs 1.1 pounds; a 20" walleye should weigh approximately 2.7 pounds.
- More trophy-sized (5.0 pounds and greater) walleye are reported from Smith Mountain Lake than any other body of water in Virginia. It is followed by Kerr Reservoir, Philpott Reservoir, Claytor Lake, and Lake Anna. Other good walleye waters include Lakes Hungry Mother, Brittle, Flannagan, South Holston, Abel, and Whitehurst. Good walleye populations exist in the Staunton, New, Clinch, Appomattox, and James rivers.
- May is the best month to catch trophy-sized walleye. From 1986-1996, almost 22 percent of all citation walleye were caught in May; 16 percent in April, and 11 percent in March.
- Walleye have a life span of 7–12 years, but can live as long as 20 years. The oldest reported walleye in Virginia is age 12.
- The current state record walleye was caught in the New River. It weighed 15 pounds 15 ounces. The fish was caught by Anthony Duncan on December 15, 2000.

Conclusion

It's safe to say that as a result of this study we know more about Virginia walleye than ever before. At Lake Frederick and Hungry Mother Lake, walleye exhibited what might be considered "classic" habits. They were most active at night or in low light conditions, and generally sought refuge in the shade of standing timber or downed trees during the day. Their distribution changed through the seasons, but during a given season their locations and activity patterns were consistent, almost predictable. At Lake Brittle and Lake Whitehurst walleye behavior was not typical at all. They were quite active during the daylight hours and did not show a marked preference for visible structure. Seasonal movements were less evident and walleye roamed to a much greater extent. At Lake Anna, walleyes held in the same pattern most of the year.

One of the most important findings of this study was unexpected. Our study efforts confirmed what some of you have suspected. There are not as many walleye as we thought in some of our lakes. For example, Flannagan Reservoir and Lake Orange were slated as study sites for the walleye project, but the research was cut short because walleye populations had declined so sharply in these systems. We have already taken steps to correct the population declines in these lakes and to prevent it from happening in other waters. Last year we launched a statewide walleye stocking plan that established eight priority waters and increased stocking rates and frequency in most lakes. Over the next few years we will be evaluating this new stocking plan to determine what works best in each type of lake that we manage.

All of this should be good news for walleye anglers. If you fish one of our study lakes, you now have specific information about where the walleye are at any given time of year. Even if your favorite walleye lake was not one of the waters we studied, you still may be able to benefit from the study. Compare the characteristics of your lake (average depth, forage type, and water clarity) to those described in this article. Find the closest fit, and put the data to the test by fishing for walleye where and when they should be active. Stay tuned, with the new walleye stocking plan in place the "good old days" of Virginia walleye fishing may be just around the corner. □

The Walleye Committee would like to thank the following people for all of their contributions to the project: Eric Brittle, Darrell Bowman, Rick Eades, Matt Fry, Dan Garren, Malika Heatwole, Clifford Kirk, Lee Martin, and John Odenkirk.

Virginia's Walleye Waters

The following waters are part of the new, statewide stocking plan for walleye. Each category will receive a different stocking rate based on management goals. Biologists are trying to develop outstanding walleye fisheries in priority waters by stocking walleye fingerlings at a higher rate per acre. In diversity waters, walleye are stocked to provide a diversity of fish for anglers to catch. Anomaly waters are managed in cooperation with other states (Gaston and South Holston), or are part of a special effort to re-establish a unique strain of walleye (Claytor and New River).

Water	County	Category
Lake Brittle	Fauquier	Priority
Burke Lake	Fairfax	Priority
Flannagan Res.	Dickenson	Priority
Lake Frederick	Frederick	Priority
Hungry Mother Lake	Smyth	Priority
Philpott Reservoir	Franklin	Priority
Lake Robertson	Rockbridge	Priority
Lake Whitehurst	City of Norfolk	Priority
Lake Anna	Spotsylvania, Louisa; Orange	Diversity
Lake Arrowhead	Page	Diversity
Lake Laura	Shenandoah	Diversity
Leesville Reservoir	Prince Edward	Diversity
Lunga Reservoir	Stafford	Diversity
Lake Orange	Orange	Diversity
North Fork of Pound Lake	Wise	Diversity
Sandy River Res.	Prince Edward	Diversity
Claytor Lake	Pulaski	Anomaly
Lake Gaston	Brunswick	Anomaly
South Holston Res.	Washington	Anomaly
New River	Pulaski, Wythe	Anomaly

The walleye project was funded with state fishing license and Federal Aid in Sport Fish Restoration Program dollars

A Bird in the Nest

by Carol Heiser and Sally Mills
illustrations by Spike Knuth

Virginia's birds have some very intriguing adaptations or behavioral strategies that help them breed successfully and ensure their survival. Shorebirds and waterfowl, upland game birds, migratory songbirds, and familiar year-round residents—all of these use a variety of methods to find food, establish nest sites, and raise offspring. One can see, for example, how shorebirds congregate in colonies to better defend their young on the open beach, or how songbirds mob crows to protect their eggs and young from predation. Whether the habitat is a marsh, a forest, or other setting, the key to each species' success is specialized or *adaptive* behavior that enables each to compete for food, defend a breeding territory, or build a nest in a unique manner.

Territorial Antics

Backyard birders are quite familiar with the antics of birds at a bird station or in the flower garden. Hummingbirds, for example, ferociously defend a food source and will dive-bomb any intruders attempting to share nectar from the feeder or a select patch of blossoms. Cardinals and blue jays often chase away smaller birds trying to share sunflower seeds. Sparrows and nuthatches frequently forage at the base of the feeder for leftovers and avoid confrontation with larger birds above.

In other habitats, you will witness other strategies. Forest birds occupy distinct feeding *niches* or roles, and

Ruby-throated hummingbird (Archilochus colubris)

their feeding behavior ensures that they can find food to meet their needs. For example, rufous-sided towhees disturb the leaf litter on the ground, brown creepers forage on tree trunks, and warblers glean the leaves in the canopy—all looking to find insects. In grassland habitat near marshes and the shore, cattle egrets follow large mammals around in order to take advantage of insects that the animals may disturb as they move through the vegetation.

Territorial breeding behavior is also easy to identify. Male bluebirds arrive in February, before the females, in order to scope out potential nesting habitat, based on the most suitable tree cavities available. They then defend a distinct territory around the nest site that the female chooses. A male red-winged blackbird uses its red "epaulets" or wing patches to defend its particular stretch of marsh, pond, or stream corridor.

Ground-nesting birds often employ some form of diversionary behavior to lead a potential predator away from their nest. The killdeer, for example, which makes a very well-camouflaged depression among the pebbles at a beach or in a parking lot, will fake a broken-wing act and limp away from the nest in an attempt to distract a predator. Other species, such as the brown-headed cowbird (a non-native exotic), build no nest at all, but instead lay their eggs in the nests of other songbird species. This is called *nest or brood parasitism*.

All of these behaviors make it likely that most birds in a given area will be able to find enough food to reproduce and to defend their young until they reach fledgling age and leave the nest.

Chimney swift (Chaetura pelagica)

Remarkable Architects

Nest building is another breeding behavior critical to reproductive success. Male and female birds use various vocalizations and flight displays during courtship, which continue when nest construction begins. Many bird species, from the hummingbird to the eagle, return year after year to the same nest site and build on top of the old one. As the architects of these remarkable abodes to house their young, birds excel at differentiation. When applied to nest building, the old axiom "form follows function" means that each species constructs a characteristic nest with a dis-

Marsh wren (Cistothorus palustris)

Least tern (Sterna antillarum)

tinct shape and particular materials that are most suited to the special needs of that bird.

The illustrations shown here are some examples of the diversity of common nests found in Virginia. One word of caution when you're out in the field looking for nests: do not attempt to collect them! The federal Migratory Bird Treaty Act protects the nests of all breeding birds, and nests may only be removed by researchers or others who hold an appropriate permit.

Did You Know?

Among the many ways that birds have adapted to their surroundings are the myriad patterns and colors of their eggs. Ground nesters, such as piping plovers, lay speckled eggs that blend in with the sand and dune grasses which form the backdrop for their nests. Cavity-nesters, like chickadees, owls, and woodpeckers, have white eggs which lack color or distinctive markings, because camouflage inside a tree is not needed from daytime predators. However, the eggs' white color stands out in the darkness and makes them vulnerable to nocturnal predators like the raccoon. Eggs come in many shapes and sizes, as well as hundreds of color combinations, all made possible by varying contributions of just two pigments. Egg shape is sometimes an important adaptation. Birds that nest on cliff ledges tend to have more pointed eggs which roll in a tight circle so they don't roll off the cliff.

Folklore

Like those of other flying creatures—bats in particular—sensitive ears allow birds to detect low-frequency sound waves. Birds, are therefore, said to be well-attuned to approaching thunderstorms long before we take notice. Country folk nicknamed the yellow-billed cuckoo the "rainbird" because it is said to sing before a rain. Another weather dittie from long ago:

"If the robin sings in the bush, then the weather will be coarse.

If the robin sings on the barn, then the weather will be warm."

Barn swallow (Hirundo rustica)

Keep Cats Indoors!

The American Bird Conservancy (ABC) would like you to think twice about letting "Fluffy" out to prowl the neighborhood. Domestic cats, which total over 60 million in the United States, are very efficient, non-native predators that contribute to the decline of many native, wildlife species, especially ground-nesting birds. Extensive studies have shown that 60–70 percent of the wildlife that cats kill are small mammals, 20–30 percent are birds, and up to 10 percent are amphibians, reptiles, and insects. This predation takes a tremendous toll on wildlife numbers. Contrary to popular opinion, putting a bell on a cat does nothing to reduce the predation. The best prevention is to *Keep Cats Indoors!* Several excellent fact sheets about the serious threat that cats pose to wildlife can be downloaded from the Conservancy's web site at **www.abcbirds.org/** or, contact them at: ABC; 1250 24th St., NW, # 400; Washington, DC 20037; (202) 778-9666.

Learning More...

Books

- *A Guide to Bird Behavior*, volumes I-III, by Donald and Lillian Stokes
- *Field Guide to Bird Nests*, Peterson Field Guide Series

Web Sites

- The Virginia Society of Ornithology: **www.ecoventures-travel.com/vso/**
- USGS Patuxent Wildlife Research Center-Bird Population Studies: **www.mbr-pwrc.usgs.gov/**
- Fatal Light Awareness Program: **www.flap.org**
- The North American Banding Council: **www.nmnh.si.edu/BIRDNET/NABC**
- The Canadian Peregrine Foundation: **www.peregrine-foundation.ca/education.html**
- Wild Birds Unlimited: **www.wbu.com**
- Bird Source-Cornell University: **http://birdsource.cornell.edu**
- Bird Watcher's Digest: **www.birdwatchersdigest.com**
- Audubon Society: **www.audubon.org**
- Partners in Flight: **www.partnersinflight.org** □

Sally Mills is an outdoor writer and editor for Virginia Sea Grant *at the Virginia Institute of Marine Science.*

Carol Heiser is a Wildlife Education Specialist and coordinates the WILD School Sites program at the Virginia Department of Game and Inland Fisheries.

Osprey (Pandion haliaetus)

Virginia Naturally

Journal

VDGIF 2001 Calendar of Events

June 8-10: *Becoming An Outdoors-Woman*, Holiday Lake 4-H Camp, Appomattox, Va. For information call (804) 367-6351.

June 14th Deadline: *2001 Kids 'n Fishing Photo Contest*. For information call (804) 367-6778.

June 14th Deadline: *James River Fishing Challenge*. For information call (804) 367-8916.

June 23–24: *Wild for Wildlife Days*, 4-H Center, Front Royal, Va. For information call (804) 367-8999.

September 14–16: *Virginia Outdoors Family Weekend*, Hungry Mother State Park, Smyth, Va. For information call (804) 367-6351.

September 29: *Women in the Outdoors*, Izaak Walton League Park, Centreville, Va. For information call Linda Layser (703) 425-6665 or e-mail **rglayser@msn.com**.

October 5–7: *Virginia Outdoors Woman, Mother-Daughter Event*, Appomattox, Va. For information call (804) 367-6351.

Additional information on VDGIF events can be found on the Department Web site at **www.dgif.state.va.us**. □

Hey Grandpa, What Do You Think?

A long-time *Virginia Wildlife* reader, 71-year-old Bill Yauss, recently wrote to tell us a huge fish story. January 3, 2000, was a special day for P. J. Parades, then 13 years old. While on his second float trip with Grandfather Yauss, he caught a really big fish. As they finished a great day of fishing, they were greeted by four enthusiastic Virginia Department of Game and Inland Fisheries game wardens at the Elys Ford Landing on the Rapidan River. P. J. then learned his smallmouth bass was a whopping 21½ inches long; then the VDGIF game wardens responded, "That's larger than any smallmouth we've ever caught. It would be a nice one to have mounted." The Outpost Store, Route 3, Spotsylvania County, certified the weight at 4 pounds 9 ounces. Yauss indicated that he has drift fished and waded the Rapidan for approximately 35 years. In all of this time he had never caught one quite as large as P. J.'s.

P. J. and his grandfather are going to file an application for a Freshwater Trophy Fish Award since this catch exceeded the 20" length requirement. If you catch a really big one, check pages 44-46 of the 2001 Virginia Freshwater Fishing Regulations (or go to our web site at www.dgif.state.va.us/varp/index.cfm) for the requirements and where to send your entry under the Virginia Angler Recognition Program. Document your catch with photographs, if possible. All applications, with photographs if available, are sent to Virginia Angler Recognition Program, Virginia Department of Game and Inland Fisheries, P. O. Box 11104, Richmond, VA 23230-1104.

While shooting away with that camera, consider entering the annual Kids 'N Fishing Photo Contest—"Picture the Excitement." Photo contest rules are on our web site at www.dgif.state.va.us/events/kidsfishin2000.html and in the May 2001 issue of *Virginia Wildlife*; you can write for the rules by enclosing a SASE and sending it to Kids 'N Fishing Photo Contest at the address listed above.

What a story P. J. has to tell his family, friends, and schoolmates. Yauss taught P. J. the old adage that if you take a person fishing you can eat for a day; teach a person to fish and you can eat for a lifetime.

Why not take a youngster or several fishing this summer and enjoy a lifetime of memories. □

On The Water

by Jim Crosby, Region 4 Boater Education Coordinator

Trailering Your Boat

Most recreational boaters are faced with hauling their boats to the water—especially those who boat on inland waters. We are moving our boats around on car tops, in trucks, and on trailers to get to our favorite launch ramps.

Boats are designed to survive a life on the water. On land, they are awkward, clumsy, heavy, and most won't even stand up straight without support. This makes them a different kind of cargo for hauling around. Boats small enough to pick up can easily be loaded in the back of a truck and hauled off with little trouble. When they get heavier than one can pick up, they present a new set of problems that are most often solved by use of a trailer specifically designed to haul a boat.

Trailering a boat makes it so much easier that we find people hauling some really large, long, and heavy boats around on some very special trailers.

While trailering adds a new dimension to one's boating experiences, it also adds a new element of danger. Hauling a boat as a well-balanced load on a trailer can lull you into a false sense of security. It's a beautiful sight to see a family lumbering down the highway on their way to a boating adventure with their pride and joy obediently following behind on its own set of wheels.

The following are some thoughts to be running through our minds while contemplating our next boating adventure:

1. Does the trailer hitch match the size of the ball on my vehicle in dimension and load?
2. Will I remember to cross the safety chains and hook them to my vehicle along with the electrical connection for the lights?
3. Is the tongue weight load on my vehicle correct for good road handling?
4. Are my lights working so people behind can see us applying the brakes and catch our turn signals?
5. Are the tires in good shape and capable of handling the load? Do they have the correct air pressure?
6. Are my wheel bearings adjusted for the right fit? Do they run smoothly and cool with adequate lubrication?
7. Will the trailer properly and adequately support my boat without distorting the hull or dumping it on the road?
8. Did I secure it to the trailer with tie-downs, and is the bow snubbed up to the winch and secure?
9. When we get to the launch ramp, will it slide off the trailer and into the water without getting hung up?
10. Will I remember to release the tie-downs and put the drain plug in the hull before allowing it to slide into the water?
11. Will I remember to attach my dock lines before launching so we can control the boat once it's afloat?
12. Is my winch and cable adequate to the load and free of meat hooks?

There is so much to consider, and remember, to make boat trailering safe and accident free. We should consider making and using a couple of checklists—like one for getting ready to pull away from home, for launching and one for retrieving. These are all critical elements of trailering and can very well make the difference between a boating adventure and a tragedy.

If you are new to trailering, seek competent guidance because prior knowledge is the key to a safe and enjoyable experience. The subject of boat trailering is covered in Virginia's boating courses. □

To increase the awareness of the importance of safely trailering your boat the Virginia Department of Game and Inland Fisheries would like to offer a free bumper sticker called "Wait! Before Leaving." It contains important information that you should follow before hitting the road and launching your boat. Send a SASE to the Virginia Department of Game and Inland Fisheries, Public Information Office, P.O. Box 11104 (4010 West Broad St) Richmond, VA 23230-1104.

RECIPES

by Joan Cone

Walleye Are Always Delicious

Walleye have become a popular Virginia sport fish. They are stocked in suitable waters which offer considerable depth, moderate current, and rocky bottoms. Walleye generally average 2–5 pounds and are considered among the best tasting of all freshwater fish. This makes them a superb choice as table fare.

Menu

Walleye With Sour Cream Sauce
Golden Corn Bread
Stuffed Zucchini Boats
Chocolate Bing Cherry Pie

Walleye With Sour Cream Sauce

½ cup flour
Salt and pepper to taste
1 teaspoon paprika
2 pounds walleye fillets, cut in serving-size pieces
1 medium onion, sliced
⅓ cup butter or margarine
1 ½ cups sour cream
1 teaspoon dried basil

In a large resealable plastic bag, combine salt, pepper, and paprika. Add fish pieces and shake to coat. In a skillet, sauté onion in butter until tender; remove and set aside. Add fish to the skillet and cook over medium heat for 3 to 5 minutes on each side or until fish flakes easily with a fork. Remove fish to a serving plate and keep warm. Add sour cream, basil, and onion to the skillet, and heat through (do not boil). Serve sauce over fish. Makes 6 servings.

Note: This recipe can be cut in half for 3 servings.

Golden Corn Bread

¼ cup vegetable shortening
1 cup yellow corn meal
1 cup flour
2 to 4 tablespoons sugar (optional)
4 teaspoons baking powder
½ teaspoon salt (optional)
1 cup milk
1 egg beaten

Heat oven to 400°F. In an 8 to 9-inch square baking pan or a 10-inch ovenproof skillet, melt shortening in oven; tilt pan to coat bottom evenly. Combine dry ingredients. Add melted shortening, milk, and egg, and mix just until blended. Pour into hot pan. Bake 20 to 25 minutes or until golden brown and wooden pick inserted in center comes out clean. Makes 9 to 10 servings.

Stuffed Zucchini Boats

3 medium zucchini
1 tablespoon vegetable oil
½ cup finely diced onions
1 ½ cup finely diced mushrooms
¼ cup finely diced sweet red pepper
1 teaspoon dried dillweed
3 tablespoons dry bread crumbs
4 teaspoons grated Parmesan cheese
Salt and pepper to taste
¼ cup mozzarella cheese

Preheat oven to 400°F. Trim off ends of zucchini. Cook zucchini in boiling water for 3 minutes or until tender. Drain and rinse with cold water. Slice each lengthwise in half. With sharp knife, carefully remove pulp, leaving shell intact. Finely dice pulp and squeeze out excess moisture. In nonstick skillet, heat oil. Sauté onions, mushrooms, red pepper, and zucchini until softened, approximately 10 minutes. Add dill, bread crumbs, Parmesan, and salt and pepper to taste; mix well. Spoon filling evenly into zucchini shells and place in baking dish. Top each with mozzarella. Bake for 10 minutes or until hot and cheese melts. Makes 6 servings.

Note: Place in 400°F. oven during the last 10 minutes of cooking time for the golden corn bread.

Chocolate Bing Cherry Pie

1 cup bing cherries, pitted and diced
1 (9-inch) chocolate crumb crust
1 quart vanilla ice cream
2 tablespoons rum or brandy
1 ounce square semi-sweet chocolate
1 tablespoon milk

Prepare cherries and chocolate crumb crust. Soften ice cream. Fold in cherries and rum or brandy. Melt chocolate over low heat and blend in milk. Spread ice cream in chocolate crumb crust. Swirl chocolate mixture through ice cream. Freeze until firm. Remove from freezer a few minutes before serving. Garnish with fresh cherries. Makes 6 to 8 servings.

Chocolate Crumb Crust:

Crush chocolate wafers to make 1⅓ cups crumbs. Combine crumbs with 3 tablespoons soft butter until crumbly. Press on bottom and sides of 9-inch pie pan. Bake in a 375°F. oven for 8 minutes. □

Backyard Wild

by Marlene A. Condon

Peanut Butter for Woodpeckers

Although most folks only think about feeding birds during the colder months of the year, June is a good time to feed peanut butter to your local woodpeckers. All of our Virginia species of woodpeckers love peanut butter (PB), and if you offer it now, parent woodpeckers may bring their young to your yard where you can watch them being fed. Juvenile woodpeckers are otherwise not very visible because these insect-eating birds tend to forage high up in trees.

It is especially interesting to see young, male hairy and downy woodpeckers because they do not look exactly like the adult males. Instead of having a red spot at the back of their heads, they have a copper-colored spot on top of their heads.

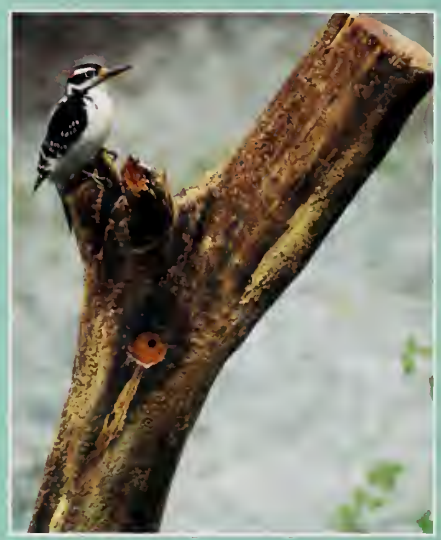
So how do you serve peanut butter to woodpeckers? The easiest way is to smear it on a stump or snag (standing dead tree). Since woodpeckers go to such locations to look for insects, they will soon find the peanut butter. Once they find it, you can be certain that they will return every day looking for more.

Many other birds and mammals also eat peanut butter. American crows and gray squirrels will eat the entire amount at once. However, there is a way to prevent this.

First, make a batch of "Mar's PB Mix": Melt one part shortening; mix in thoroughly an equal amount of peanut butter; then add 3–5 parts corn meal or flour to make a stiff but not dry dough.

Next drill one or more holes (about one-half inch deep) into the stump or snag. Place a square of ¼-inch hardware cloth over each hole and staple it at the corners. Fill the holes by pressing the peanut butter mixture through the hardware cloth with a knife. The squirrels and crows will only be able to get the peanut butter mix near the surface of the cloth, while the woodpeckers will be able to use their long tongues to extract the peanut butter mix deeper inside the holes.

Ants will also visit the PB, but the woodpeckers lick them up too! □



Hairy woodpecker (Picoides villosus) *feeding at a peanut butter snag.*

Red-bellied woodpecker (Melanerpes carolinus).

Pileated woodpecker (Dryocopus pileatus).

Naturally Wild

story and illustration
by Spike Knuth

Walleye

Stizostedion vitreum

The largest member of the perch family gets its name from the strange milky, or glassy, appearance of its eyes. It is primarily a nocturnal feeder, and evidently its eyes give them some advantage for seeing in the dark. Their bodily coloration varies with the type of water they live in. Some are plain silver-gray in some waters to a dark olive-brown in others. Its typical, picture-book appearance is dark olive-brown or olive-green above, with sides that are flecked and mottled with green and gold. They have large, irregular blotches that are more visible in some waters than in others.

A good identification mark is the dark blotch at the rear base of its spiny dorsal fin, the white blotch on the lower lobe of its tail fin, and the spiny dorsal separated from the soft-rayed dorsal. A similar species, the sauger (found mainly in far Southwest Virginia), has a spotted dorsal.

Walleye avoid bright light as much as possible, choosing to lay in deep or shaded cover during daylight hours, then moving into the bars and reefs near the shallows at night. However, they are commonly found in some shallow lakes that are turbid, and they tend to be active on those days that are dark and overcast. Walleye prefer waters that are cooler than those that support other warmwater species—usually in the 60-70°F range.

Walleye orient to ledges, large rocks, underwater islands, large logs or stumps, edges of large weed beds, and along old riverbed channels. They feed at night and tend to feed closer to the bottom more regularly than other game fish. Natural foods consist of leeches, small fishes, especially tiny bullheads, shad, alewives, and other small fish depending on the type of water, as well as insect larvae (midges) and crayfish.

Walleye are early spring spawners, sometimes spawning as early as late February in Virginia. Normally they'll run rivers to spawn, but they will spawn in lakes over rocky or gravel shoals, or amid clean, low-growing, emergent vegetation. The eggs are non-adhesive and hatch in about two weeks. At first the young feed on plankton and minute aquatic life, then turn to tiny fish as they grow.

Walleye are native to the Great Lakes Region, and the Mississippi, Ohio, and Tennessee drainages. In Virginia it was native to the New and Clinch rivers, but is now found almost statewide. □

The walleye is equipped with sharp canine teeth, very sharp gill cover edges, and (like all perch) has small, ctenoid scales, which feel like sandpaper. It is often misnamed walleyed pike; however, it is not a pike. Other names include jack or dore', meaning gold and refers to its golden sides in some specimens.

GRIN AND BEAR IT.

Put a grin on your face with the latest addition to Virginia's series of Wildlife Conservationist License Plates. When you buy the new bear cub, the bald eagle, turkey, brook trout, white-tailed deer, largemouth bass or mallard duck, you can proudly display your commitment to wildlife. For every set of plates you buy, $15 goes to Virginia's wildlife management and research programs. All plates are available from the Virginia Department of Motor Vehicles. Choose a regular plate or a personalized plate (2 to 6 letters or numbers). Just stop by the nearest DMV office to pick up an application for a Wildlife Conservationist plate. It's one of life's "bear" necessities.

Virginia Wildlife subscription calls only 1-800-710-9369
All other calls to (804) 367-1000
Visit our Web site at www.dgif.state.va.us